

Birth to Three Years -Infant and Toddler- Basic Foundations

ENGLISH LANGUAGE ARTS
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BASIC FOUNDATIONS FOR ENGLISH LANGUAGE ARTS

Perhaps the most significant accomplishment a child makes during the first three years of life is acquiring language and using it to communicate. Infants first begin to communicate through crying, body movements, gestures, and facial expressions. As babies grow into toddlers and preschoolers, they attain a vocabulary of hundreds of words, and they learn how to use them to get what they need or want, express their feelings, or simply to make conversation.

While children do have the predisposition to learn languages, this does not happen in a vacuum. Adults play a vital and irreplaceable role in a young child's speech development and literacy knowledge. Frequent interactions with young children, as well as providing opportunities to use (and witness the use of) written language in daily life, enable children to become competent readers, writers, speakers, and listeners.

Young children must have the opportunity to do more than simply "learn to read and write," they need adults who provide experiences that make literacy enjoyable. A child should develop skills but should also have the disposition to become a reader and writer. They must desire books. They must love words. Adults can help make this happen by making language pleasurable through reading aloud, singing songs, reciting playful poetry, and purposefully expose language for what it is – an important and enjoyable part of our world.

Research has demonstrated that children with foundational skills of familiarity with print and books, the purposes of writing, and listening and speaking will be ready to benefit from reading instruction in school, learn to read sooner, and will be better readers than children with fewer of these skills (Strickland & Morrow, 2000; Whitehurst & Longman, 1998).



KEY FINDINGS

- ♦ Adults who live and interact regularly with children can profoundly influence the quality and quantity of their literacy experiences. *[National Research Council, 1998]*
- ♦ The early childhood years—from birth through age eight—are the most important period for literacy development. *[Newman, S.B., Copple, C. & Bredekamp, S., 1999]*
- ♦ During the infant and toddler years, children need relationships with caring adults who engage in many one-on-one, face-to-face interactions with them to support their oral language development and lay the foundation for later literacy acquisition. *[Newman, S.B., Copple, C. & Bredekamp, S., 1999]*
- ♦ Toddlers and preschoolers are able to learn new words at a phenomenal rate, provided that they are in a language-rich setting in which adults read and talk with them and in which they are able to talk and play with other children. *[Newman, S.B., Copple, C. & Bredekamp, S., 1999]*
- ♦ Promoting literacy at home does not mean creating an academic setting and formally teaching children. Parents and caregivers can take advantage of opportunities that arise in daily life to help their children develop language and literacy. *[National Research Council, 1999]*
- ♦ Young children can begin to understand that print is everywhere in the world around them, and that reading and writing are ways for them to get ideas, information, and knowledge. *[National Research Council, 1999]*
- ♦ Children need to feel positive about reading and literacy experiences. *[National Research Council, 1999]*
- ♦ Children engaged in language and literacy activities appear mostly playful and exploratory, although in fact they are hard at work as scholars of language and literacy. *[National Research Council, 1999]*
- ♦ Reading aloud to children has been called the single most important activity for building the knowledge required for success in reading. *[Partnership for Reading, 2003]*
- ♦ Very early, children begin to learn about spoken language when they hear their family members talking, laughing, and singing, and when they respond to all of the sounds that fill their world. *[Partnership for Reading, 2003]*
- ♦ Children begin to understand written language when they hear adults read stories to them and see adults reading newspapers, magazines, and books for themselves. *[Partnership for Reading, 2003]*
- ♦ Because written language plays a central role in the daily workings of our world, children become aware of its significance very early in life. *[Owocki, 2001]*
- ♦ Children are born with a predisposition to acquire language, but in order for that language to develop to its potential, the child must have the opportunity to speak, listen, read, and write in meaningful contexts with adults and peers. *[National Research Council, 1999]*

ENGLISH LANGUAGE ARTS BASIC FOUNDATION 1

B.1 - Emerging Reading

Familiarity with Print and Books

A child begins on the journey to reading on the day he/she is born. The choices an adult makes from this day on determine whether the child will achieve success as a reader in future years. There is a continual connection between early language development and learning to read. To help promote early reading development, adults should provide many pleasurable experiences with books and other reading materials.

Young children are learning when they:

- B.1.1 Track movement.
- B.1.2 Open a book.
- B.1.3 Explore a book.
- B.1.4 Point to pictures in a picture book.
- B.1.5 Emulate sounds in the environment (e.g., animal, motor).
- B.1.6 React to a story or event.
- B.1.7 React to new situations based on the memory of a previous event.
- B.1.8 Recognize when a caregiver is not present.
- B.1.9 Show affection to a caregiver, character, or plaything.
- B.1.10 Turn several pages of a book at a time.
- B.1.11 Look at books for one minute.
- B.1.12 Visually engage with a book.
- B.1.13 Pretend to read a book aloud.
- B.1.14 Match pictures to actual objects.
- B.1.15 Distinguish print from pictures.
- B.1.16 Point to a letter when asked to “point to a letter.”
- B.1.17 Actively attend to things that an adult is showing.
- B.1.18 Enjoy looking at books.
- B.1.19 Find named pictures or textures in book.
- B.1.20 Anticipate actions, sounds, or phrases from a predictable story.
- B.1.21 Recognize pictures of family members.
- B.1.22 Name actions from pictures or a story.
- B.1.23 Identify where he/she is currently located.
- B.1.24 Recognize a favorite character.
- B.1.25 Pretend to do something or be someone.

A child can be supported by an adult who:

- Creates a daily reading routine, whether it is before bedtime, after lunch, or in the morning.
- Changes the tone of voice when reading to show emotion and excitement.
- Provides the child with books that are manipulative, with interactive features such as sounds or textures, and that can be explored with the child’s mouth.
- Provides the child with books that have interesting language, rhythm, and sounds.
- Provides child with books with predictable patterns and repeated language.
- Points to words, letters, labels, and reads or names them.
- Asks the child to follow simple requests while looking at a book (e.g., point to the cow).
- Shows children that we read print moving left to right and top to bottom.
- Helps the child to recognize and write name if initiated by the child.
- Exposes the child to rhymes and poems such as nursery rhymes and finger plays.
- Attends to and encourages young child vocalizations and communicative gestures.
- Take turns “talking” with the child.
- Reads some books over and over again and encourages the toddler to join in with the words he knows. Toddlers like to hear the same story many times.
- Encourages the child to reenact a story through play.
- Limits television viewing and watches appropriate shows with a child aged 2-3.

How it looks in everyday activities:

Dinner is over and bath time is almost finished. Dad bundles his wiggling son in a towel and heads for his bedroom. “No sleep, NO SLEEP,” he protests. “I want MOMMY!” “Mommy’s working, but she’ll be home soon,” says Dad. “Time to get your jammies on so we can read our bedtime book,” Dad sighed with relief as this bedtime routine works its magic in calming his child.

Settling in for the story, the toddler picks up his copy of Owl Babies. “Great!” says Dad. “Let’s read and see when the mommy owl comes home.” After the toddler snuggles up on Dad’s lap, Dad and son look at the pictures of the snowy owls. The son points to his favorite character, “Little Bill.” Listening intently, the little boy waits in anticipation for the picture of Mother Owl. Together, Dad and son cry “and she came!!” when the mother owl flies back to the nest.

“See!” Dad says, “Mommies do come back!”

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- The child follows a routine.

Communication/Literacy:

- Listens intently and responds verbally to a book being read.

ENGLISH LANGUAGE ARTS BASIC FOUNDATION 2

B.2 - Writing

Early Efforts to Write

Children make their first artistic gestures and attempts at writing the first time they flail their hands in the air. Infants and toddlers use these experimentations as well as large motions, a variety of materials and differing levels of intent to develop in the area of writing. Children need to experiment with a variety of “writing” techniques such as scribbling, drawing, and finally developing actual writing skills. To enhance the development of writing skills, adults should promote the child’s experimentation and effort rather than the finished product and allow them to use materials in their own creative manner.

Young children are learning when they:

- B.2.1 Track movement.
- B.2.2 Use eye gaze to communicate.
- B.2.3 Use proximity to communicate.
- B.2.4 Use gestures to communicate.
- B.2.5 Show affection for an imaginary character or plaything.
- B.2.6 Use symbols or objects to communicate.
- B.2.7 Imitate sounds in environment (e.g., animal, motor).
- B.2.8 Grasp tools.
- B.2.9 Intentionally make marks in substances.
- B.2.10 Engage someone else to record ideas in words, drawings, or symbols.
- B.2.11 Listen to others tell about their writing.
- B.2.12 Recognize a favorite character.
- B.2.13 Attempt to write and draw.
- B.2.14 Use drawings or pictures to represent objects.
- B.2.15 Scribble a message on a card or picture.
- B.2.16 Make marks with writing tools.
- B.2.17 Mark on paper rather than other surfaces.
- B.2.18 Imitate drawing a vertical line.
- B.2.19 Imitate drawing a horizontal line.
- B.2.20 Imitate drawing a circle.
- B.2.21 Associate writing with sounds.

A child can be supported by an adult who:

- Provides many activities that foster the development of fine motor skills and strength such as rattles, finger plays, use of tools, play dough, scissors, stringing beads, lacing and manipulation of small items.
- Provides developmentally appropriate and adaptive writing and drawing materials for children of different ability levels such as large crayons or pencils.
- Models writing in front of their children through everyday situations, such as making a grocery list, writing down a recipe, or writing a thank-you note.
- Writes, displays, and points out children’s names often.
- Labels objects and areas in the child’s setting.
- Is responsive to children who seek help in their attempt to write and draw.
- Writes down toddler stories and labels their drawings.
- Prompts the child to “tell me more” to encourage extensions of the child’s picture or writing.
- Displays children’s drawing, scribbling, or writing efforts at the children’s eye level and rotates the items frequently.
- Does not try to interpret the child’s work or criticize it.

How it looks in everyday activities:

Mrs. Adams carries her crying daughter Emma, aged 2 ½, into the home child care setting. Ms. Janie greets Emma, who is holding her mother's coat and repeating, "Want to go home." Ms. Janie wonders where Emma's usual smile and hugs have gone and asks Mrs. Adams what led to the tough morning. Mrs. Adams replies, "Well, Daddy is out of town and then we had guests over last night, so we got to bed a little later than usual."

Mrs. Adams says, "Honey, Mommy will see you later after nap and snack. And then we will go to the airport and get Daddy." She passes the still crying Emma to Ms. Janie who starts trying to distract her with toys. Emma sniffles as she refuses many things she usually likes. Ms. Janie thinks and then says, "You miss Daddy, don't you?" Emma nods her head sadly. "I wonder if you would like to write him a letter?" asks Ms. Janie. Emma sits at the table and tells Ms. Janie to write "Miss Daddy. Love you Daddy" on the paper. She colors on the paper, saying it is a picture of Daddy. Soon the paper is finished and waiting in the cubby for Daddy, and Emma joins some friends working puzzles with her usual smile.

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Experiences difficulty separating from mother; child receives hug; child verbalizes feelings.

Communication/Literacy:

- Verbalizes message to be included in the letter; draws a corresponding picture to the letter.

Physical:

- Uses writing tools that build muscle control and strength.

ENGLISH LANGUAGE ARTS BASIC FOUNDATION 3

B.3 - Listening and Speaking

Listening with Understanding and Communicating Through Speaking and Other Forms of Communication

The process of acquiring language is complex. During the infant and toddler years, children need relationships with caring adults who engage in many one-on-one, face-to-face interactions with them to support their oral language development and lay the foundation for later literacy acquisition (Newman, S.B., Copple, C. & Bredekamp, S., 2000). Children learn to communicate long before they speak. Babies are big communicators. They use sounds, gestures, and facial expressions to communicate what they want and need. The caregiver or parent can facilitate communication by being attentive to an infant's signals such as babbling and cooing. Their speech development is facilitated by an encouraging partner who responds to their beginning communications, repeats their sounds, offers sounds for them to imitate, and explains events to the infant while they are taking place. As the toddler grows and develops, there is a wide range of normal language development during this time. Adults can communicate actively with toddlers by modeling good speech, listening to them carefully, making use of and expanding on what they say, and helping them with new words and phrases.

Young children are learning when they:

- B.3.1 Vocalize while looking at a book.
- B.3.2 Use eye gaze, proximity, and gestures to communicate.
- B.3.3 Respond to arrival of a familiar person.
- B.3.4 Smile or laugh when looked at or spoken to.
- B.3.5 Respond to own name, words, or short phrases (e.g., "Stop!" "Where's Mommy?").
- B.3.6 Imitate one-word vocalization.
- B.3.7 Vary pitch, length, and volume of vocalizations to express wants and needs.
- B.3.8 Use jargon (expressive sounds) in conversational manner.
- B.3.9 Give an object when asked.
- B.3.10 Engage in turn-taking vocalizations.
- B.3.11 Jointly attend to object of interest to self.
- B.3.12 Jointly attend to pictures and books for several minutes.
- B.3.13 Find named pictures or textures in book.
- B.3.14 Shift attention along with communication partner.
- B.3.15 Use action words.
- B.3.16 Actively attend to things an adult is showing.
- B.3.17 Follow simple directions with prompts.
- B.3.18 Use appropriate intonations for questions.
- B.3.19 Use two-word vocalizations, signs, symbols, or gestures to tell about objects or events in the present.

A child can be supported by an adult who:

- Reads and responds to the child's cues.
- Maintains eye contact.
- Imitates child's sounds and gestures.
- Matches facial expressions to the tone of the voice.
- Varies tone of voice and level of voice.
- Varies gestures and facial expressions.
- Utilizes routines such as diapering, feeding, etc., to talk to the child about what is being done.
- Repeats phrases over and over.
- Provides opportunity to listen to sounds in the environment.
- Uses child's name frequently.
- Keeps language simple.
- Initiates games, such as the echo game or word games.
- Points to objects being talked about.
- Uses descriptive words.
- Places familiar pictures where children can see them.
- Has and reads books with repetition.
- Gives one-step directions (e.g., "show me your nose" or "give me a diaper").
- Interprets and gives names to child's emotions.
- Repeats and expands on what child says.
- Uses all forms of nonverbal communication when speaking to a child.
- Reads rhymes with interesting sounds, especially those accompanied by actions or pictures.

How it looks in everyday activities:

Mrs. Hinkley smiles at her 10-month old son James as she carefully buckles him into his car seat for a trip to the grocery store. She talks to him while she checks the straps, telling him every step. Mr. and Mrs. Hinkley sit in front and review the grocery list on the way to the store.

James shakes a toy and vocalizes, “Da-da-dad-da!” He pauses briefly, as Mrs. Hinkley looks back at him and repeats “Da-da-da-da!” James smiles a big smile. Mr. Hinkley looks at James in the rear view mirror and takes his turn with the phrase. Then, James repeats his sounds, again pausing afterward with an expectant look. Mrs. Hinkley takes her turn, but Mr. Hinkley is busy looking for a parking spot and does not reply immediately. James waits a moment then says “Da!” Mrs. Hinkley nudges her husband, who smiles a smile as big as his son’s and loudly says, “Da-da-dad-da!” James smiles back, and the echo game continues as the family enters the store.

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Develops a close, trusting relationship with parents; enjoys playing with parents.

Communication/Literacy:

- Responds to an adult’s language and repeats adult language.

Cognitive:

- Makes connections about what’s next; learns that sounds have a purpose.

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MATHEMATICS
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BASIC FOUNDATIONS FOR MATHEMATICS

During the early years of life, young children begin to explore their world, a world that relies on mathematical concepts to build a foundation for further learning. They begin to compare quantities, find patterns in various objects, move through their environment, and initiate problem solving.

Mathematics helps children survey their environment and start to form a sense of order. This beginning sense of order is of primary importance in constructing a solid foundation for future success. Children's math development is nourished by everyday play activities and exploration of the world around them. It is important for adults to support young children's learning and play, answer their questions, take care of their physical needs, and encourage their natural curiosity in order to lay the foundations for later success.

Adults can support the development of mathematics by incorporating math into everyday activities. Mathematics is more than counting and recognizing numbers. It involves learning about heavy and light, big and small, and long and short. Math also involves learning about shapes (circle, square, rectangle), recognizing patterns (blue-yellow-blue-yellow) and comparing (which is more and which is less). Using math words around young children helps them begin to understand math concepts. Math must be connected to children's lives. There is no need to drill children with flashcards or do worksheets or programs of direct instruction to get them to learn math. When children learn math in contrived situations rather than meaningful learning through routine activities that are connected with their lives, the results will be rote learning without understanding. This does not promote the "spirit of mathematics." There are many opportunities for "math talk" as you go through the day.

Adults that are involved in the lives of very young children need to be familiar with the social, emotional, and motor development of infants and toddlers. It is vitally important that families and caregivers be sensitive to the emotional development and level of tolerance and persistence in young children. Every child learns at their own pace, and families and caregivers must understand that concentrating on a prescriptive level of skill development instead of intimate awareness of a child's level of learning does not equate with long-term success built on a solid foundation of knowledge. It is better to proceed slowly and keep their interest than to push too hard.

Providing daily opportunities for problem solving, reasoning, communication, connections, and representation make it possible for young children to learn the content of math. These processes develop over time with the help of adults who connect math to everyday activities. Connecting mathematics to other areas of learning such as music, art, and science also enhances both mathematical concepts and the additional subject. In communicating and working with young children to enhance their knowledge of mathematics, the most important attribute an adult can bring with their solid foundation of skills is a positive disposition. A positive attitude toward mathematics and mathematical learning begins in early childhood.

KEY FINDINGS

- ♦ Infants and toddlers have a natural interest in mathematics and use it to make sense of their physical and social worlds. In play and daily activities, they explore and play by sorting, comparing, and noticing the different shapes in their world. *[Geist E., 2003]*
- ♦ Recognizing and building on a child's experiences are most effective in enhancing mathematics in early childhood. Young children learn best when families and caregivers focus on the child's strengths and learning styles. *[Bredekamp, S., & Copple, C., 1997]*
- ♦ Families and caregivers need to explore and learn what children already know and help them to understand their knowledge as it relates to mathematics. They can provide multiple opportunities for infants and toddlers to organize, quantify, generalize, and refine those concepts that they, in the beginning, grasp only at an experimental or intuitive level. *[Geist, E. 2001]*
- ♦ It is important that infants and toddlers have experiences with known relationships and sequences of mathematical ideas. *[Geist, E., 2003]*
- ♦ Effective learning experiences are intentionally organized and build on a child's understanding over time. Focused exploration is a primary method by which children build on knowledge and learn new concepts. Young children should be provided with time, materials to manipulate, and an environment to explore to develop a keen interest and love of learning. *[Bredekamp, S., & Copple, C., 1997]*
- ♦ Mathematical concepts should be woven into the daily experiences of a young child's natural routines. Intentional weaving of mathematical concepts into literature, language development, science, social studies, art, movement, and music enhances all areas of learning. *[Lally, J., Griffin, A., Fenichel, E., Segal, M., Szanton, E., Weissbourd, B., 1995]*



MATHEMATICS BASIC FOUNDATION 1

B.1 - Number Sense

Counting and Number Concepts

Learning the meaning of numbers is more than counting. It involves the ability to think and work with numbers and understand their relationships and the different uses for numbers. Counting is a foundation for children's early work with numbers. Counting a wide variety of objects is helpful in order for children to appreciate the breadth of the application of counting skills. Children enjoy practicing counting games from the time they learn to talk. Infants and toddlers learn the meaning of numbers in everyday experiences the adult provides.

Young children are learning when they:

- B.1.1 Repeat a movement like a clap.
- B.1.2 Touch one object.
- B.1.3 Give an object when asked.
- B.1.4 Repeat number words.
- B.1.5 Count 1.
- B.1.6 Select the preferred item when given two choices.
- B.1.7 Communicate when something is empty or "all gone."
- B.1.8 Indicate a desire for more.
- B.1.9 Clap or moves to a beat.
- B.1.10 Touch in sequence, one at a time
- B.1.11 Use fingers to show how many or age of self.
- B.1.12 Use whole numbers up to 3 to describe objects and experiences.
- B.1.13 Rote count to 3.
- B.1.14 Match like numerals.
- B.1.15 Give 1 object when asked.
- B.1.16 Line up objects.
- B.1.17 Identify which is more (visually, tactilely, or auditorilly).
- B.1.18 Count backward from 3.
- B.1.19 Give "more" when asked.
- B.1.20 Share a set of 2 with a friend.
- B.1.21 Claim objects as "mine."
- B.1.22 Feed pieces of food to another person, pet, or plaything.

A child can be supported by an adult who:

- Plays peekaboo with child to help her understand that objects continue to exist even when out of her sight (teaches object permanence).
- Plays hiding games with objects.
- Offers objects of interest to count.
- Models counting by pointing to objects as you recite the number, uses fingers to count, and puts up a finger one at a time as you count.
- Encourages the child to sort by looking for similarities in color or shape.
- Provides toys such as simple puzzles and interlocking blocks. Lets the child play without interruption so she can build attention span.
- Asks questions that require thinking.
- Encourages the child to point to and count their fingers, legs, nose, ears, and eyes.
- Helps child look for differences in size (e.g., bigger, smaller, shorter, longer)
- Sings songs or says rhymes that have numbers.

How it looks in everyday activities:

Jennifer is busy changing baby Susan's diaper. During the diaper change she looks at Susan and smiles and talks. The quiet time continues a bit after the diaper change is over. Jennifer touches each of Susan's toes, counting aloud, "One, two, three..." Susan is attentive and coos back at Jennifer, matching her smiling face.

Big brother Eric watches his mother and sister. He is 6 and in the first grade. "Mom," he says with all of the knowledge that first grade imparts, "babies cannot count. They don't even talk!" "Well, not yet," Jennifer agrees. "When you were a baby you liked this game too. When we count with Susan it helps her know about numbers so she will be ready when she gets to first grade, just like you!" Eric thinks about this and gently touches Susan's toe. "One." he begins, smiling at his sister and mother.

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Develops a close, trusting relationship with primary caregivers; Child and adult enjoy playing together.

Communication/Literacy:

- Listens and responds to others.

Cognitive:

- Makes connections about what's next; learns sounds have a purpose.

Self Help:

- Learns from authentic experiences.

MATHEMATICS BASIC FOUNDATION 2

B.2 - Computation

Number Language and Operations

Math skills begin when a baby begins to notice what is around him. A baby may notice when a favorite blanket or stuffed animal is “subtracted” from the room or “added to” the room. Math thinking is occurring when an adult asks, “which animal is bigger” or when a child asks for “one more.” Comparing quantities is not dependent on knowledge of counting skills. Because young children do not use math words spontaneously, an adult can help them understand math words such as more, less, smaller than, bigger than, different than. These words help children describe the size and shape of objects and the relationships of objects to one another. Understanding the meaning of these words will help children perform simple operations of adding to and taking away when the child gets older.

Young children are learning when they:

- B.2.1 Select the preferred item when given two choices.
- B.2.2 Communicate when something is empty or “all gone.”
- B.2.3 Indicate a desire for more.
- B.2.4 Gather small collections of 1-3 objects without counting.
- B.2.5 Take away an object when asked.
- B.2.6 Show something that was received.
- B.2.7 Show displeasure at losing something.
- B.2.8 Give 1 object when asked.
- B.2.9 Line up objects.
- B.2.10 Identify which is “more” visually, tactilely, or auditorily.
- B.2.11 Count backward from 3.
- B.2.12 Give “more” when asked.
- B.2.13 Share a set of 2 with a friend.
- B.2.14 Feed pieces of food to another person, pet, or plaything.
- B.2.15 Move objects one at a time from one group or container to another.
- B.2.16 Identify the object that had been added to a group.
- B.2.17 Describe that something was taken.

A child can be supported by an adult who:

- Plays and talks to the child.
- Places objects near the child for exploration.
- Moves the child from room to room to explore environments.
- Offers safe toys for play.
- Provides small blocks that can be held in the child’s hands.
- Gives the child stacking toys and objects that fit inside each other.
- Shows examples of one-to-one correspondence (e.g., plays “one-for-you-one-for-me” game).
- Uses “number” and “size” words when talking to the child.
- Provides sorting opportunities.

How it looks in everyday activities:

Alice sits in her high chair watching her mother Teresa move around the kitchen as she prepares a snack for her and the other children she cares for. Teresa opens a bag of pretzels and gives each older child a few on a napkin. Cody and Caitlin, who are 5, count their pretzels to make sure they have the same number. Alice points to the pretzels, looking at her mother and making sounds.

“Alice are you ready for a snack, too?” Teresa asks. Alice holds out her hand and vocalizes again. “Here is one pretzel” Teresa says, emphasizing the word one. “Do you want more?” she asks. Alice looks at her and smiles. Teresa puts the second pretzel in Alice’s other hand saying, “Now you have two pretzels. You have one for each hand.” Alice looks at the pretzels and starts to eat.

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Receives one-to-one social experience with adult.

Communication/Literacy:

- Hears number sounds relating to quantity of objects.

Physical:

- Uses small motor skills in holding objects and making gestures.

Self Help:

- Learns how to request more.

MATHEMATICS BASIC FOUNDATION 3

B.3 - Algebra and Functions

See Patterns, Sort, and Classify

The ability to see and create patterns helps children make connections about what they see and experience. It helps children to develop a sense of sequence and relationships. A pattern is a regular arrangement of objects, numbers, or shapes. Understanding patterns and relationships means understanding rhythm and repetition as well as ordering things, sorting, and categorizing.

Young children are learning when they:

- B.3.1 Repeat a movement like a clap.
- B.3.2 Show interest in visual/auditory/tactile patterns.
- B.3.3 Show interest in something out of place, like finding a small object on the carpet.
- B.3.4 Clap hands and wave bye if prompted.
- B.3.5 Complete a word or phrase that repeats in a familiar song or story.
- B.3.6 Purposely move and manipulate different objects.
- B.3.7 Clap or move to a beat.
- B.3.8 Share a set of 2 with a friend.
- B.3.9 Nest smaller objects into larger.
- B.3.10 Put things in order.
- B.3.11 Move objects from one container to another.
- B.3.12 Claim objects as “mine.”
- B.3.13 Identify which is “more” visually, tactilely, or auditorilly.

A child can be supported by an adult who:

- Provides books and picture patterns.
- Talks about size of objects during play and meals.
- Identifies patterns in everyday life.
- Offers the child opportunities to manipulate objects into and out of patterns.
- Provides simple three-piece puzzles.
- Provides toys that teach cause and effect (e.g., blocks for stacking and allowing space for blocks to fall when stacked too high, simple switch toys that turn off and on).
- Provides child with small blocks saying “Here are two blocks.”
- Provides blocks of different sizes.
- Provides simple matching activities (e.g., matching three-dimensional objects to pictures).
- Offers opportunities to sort and classify foods by attributes, color, and shape.
- Names sounds, rhymes during play, sings songs.
- Provides a variety of materials with textures for manipulation.
- Provides a wide range of opportunities in physical and social environments to encourage sorting and classifying.

How it looks in everyday activities:

Charlie loves blocks. He likes to put them into containers and dump them out. He likes to stack them, line them up, and make them into trains. Today, Charlie goes straight to the block area when he arrives at his child care center. Ms. Jones, his teacher, watches him run to the blocks and waits to see what he will do today.

Charlie pours all of the blocks into a one big pile. Then, he carefully selects only the red ones, putting them into a separate group. Charlie looks up to see Ms. Jones observing him. “Wow, Charlie that’s great!” Ms. Jones enthuses. “You put all the red blocks together.” She sits next to Charlie and selects a blue block, which she carefully places away from the red pile. “Charlie” asks Ms. Jones, “Now can you make a big group of blue blocks?” Charlie works carefully on the tasks. As Ms. Jones watches him she wonders what new thing Charlie will do with the blocks tomorrow.

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Self-esteem is promoted through accomplishment of a task without assistance.

Communication/Literacy:

- Practices follow-through; follows instructions.

Physical:

- Uses large and small motor muscles.

Self Help:

- Learns to self-initiate an activity.

MATHEMATICS BASIC FOUNDATION 4

B.4 - Geometry

Common Shapes and Directional Words

Early geometry concepts involve shape, size, position, space, movement, and direction. Geometry helps a child describe and classify the physical world in which we live. As children enjoy dropping, rolling, throwing, submerging, or waving objects or running, climbing, building, taking apart and putting together again, they are exploring awareness of themselves in relation to people and objects around them. This is a child's way of finding out how the world works.

Young children are learning when they:

- B.4.1 Notice objects and purposely move and manipulate different objects.
- B.4.2 Use a shape toy to explore basic shapes.
- B.4.3 Remove articles of clothing, like socks or shoes.
- B.4.4 Put things in and out of mouth.
- B.4.5 Look or feel for an object that has been hidden from view.
- B.4.6 Hide face in play.
- B.4.7 Separate objects.
- B.4.8 Put smaller objects into larger holes, slots or depressions.
- B.4.9 Identify 3 body parts.
- B.4.10 Put pairs together.
- B.4.11 Put things in and out of other things.
- B.4.12 Put things on and off of other things.
- B.4.13 Find hidden objects or sounds.
- B.4.14 Hide behind or between objects in play.
- B.4.15 Identify where he/she is currently located.
- B.4.16 Search for something out of sight.
- B.4.17 Put simple objects together and take them apart.
- B.4.18 Imitate drawing a horizontal line, vertical line, and a circle.
- B.4.19 Complete a three piece inset puzzle.
- B.4.20 Move objects from one container to another.

A child can be supported by an adult who:

- Provides safe things the child can touch and manipulate such as blocks, boxes, or containers, shape sorters, and puzzles.
- Cuts sandwiches into different shapes and lets child fit the pieces together or rearrange them.
- Uses words such as same, different, more than, less than, and one more as you compare groups of objects.
- Uses location words such as “in back of”, “beside”, “next to.”
- Talks about what the child is doing so that the child begins to learn the words that describe concepts (e.g., “you were **in** the box, then you climbed out.” “You climbed under the table”).
- Allows children to explore and pace themselves when playing with toys and learning a new skill. Allows child to find own sequence and rate of learning.
- Provides nesting toys such as plastic bowls and measuring cups.
- Provides simple puzzles, stacking toys, shape sorters, and texture balls.

How it looks in everyday activities:

At home one evening Sandy plays on the floor with many different kinds of toys from her toy box. She has some small horses with pink and purple hair, a family of little people from her playhouse, some kitchen supplies, some different sized rings, and a stacking pole. Sandy looks through the toys until she finds all of the rings. There are 5 and they are all different colors and sizes. She puts the rings on the pole one by one. It takes her several tries to get the rings on in the right order, from largest to smallest. Dan, Sandy's dad, watches. He notices that Sandy is working hard but is not frustrated, so he does not interfere, waiting to see if help is needed. When Sandy has the rings stacked correctly, she stops and looks over at her dad. Dan says, "Good for you Sandy! You found all the rings and put them on the stacking pole." Sandy seems pleased as she dumps the rings off the pole to start again.

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Practices self-direction in use of toys.

Communication/Literacy:

- Learns listening skills from adult comments.

Physical:

- Uses small motor skills.

Self Help:

- Selects from various objects for correct usage.

MATHEMATICS BASIC FOUNDATION 5

B.5 - Measurement

Measurement is a frequently used application of mathematical concepts. Counting is a type of measurement because it measures how many items in a collection. Early measurement concepts also include attributes such as length, volume, area, weight, and time. Young children may learn that the properties exist, but they do not know how to reason about these attributes or measure accurately until later on. Young children develop measurement ideas over an extended time because the concept is quite complex. Young children begin to develop an understanding of measuring attributes by looking at, touching, or directly comparing things.

Young children are learning when they:

- B.5.1 Give one object when asked.
- B.5.2 Select the preferred item when given two choices.
- B.5.3 Communicate when something is empty or “all gone.”
- B.5.4 Indicate a desire for more.
- B.5.5 Identify big.
- B.5.6 Pour substances out of containers.
- B.5.7 Cooperate with a routine.
- B.5.8 Anticipate an event.
- B.5.9 Give one object when asked.
- B.5.10 Identify which is “more” visually, tactilely, or auditorily.
- B.5.11 Give “more” when asked.
- B.5.12 Share a set of 2 with a friend.
- B.5.13 Distinguish big and little.
- B.5.14 Make choices based on size.
- B.5.15 Identify when objects are similar.
- B.5.16 Pour substances into containers.
- B.5.17 Anticipates a sequence during daily activities.

A child can be supported by an adult who:

- Sets simple time limits (e.g., three more swings and we are done. Verbally counts 1, 2, 3).
- Offers a variety of safe household objects to explore (e.g., cups, bowls, spoons).
- Talks about measurement in daily routines (e.g., all done, more, heavy, longer).
- Extends play activities with a measurement activity (e.g., look at one more page in the book, build a tower with one more block, play with one puzzle at a time).
- Offers opportunities for waiting (e.g., your turn is next).

How it looks in everyday activities:

Two and a half year old Jake and his Daddy are getting dressed to go outside in the back yard so they can work in the garden one Saturday morning. Daddy helps Jake find the warm clothes they need to wear outdoors on this fall morning. “Now let’s put our shoes on,” Daddy says to Jake.

Daddy and Jake walk together to the back door where they keep their dirty work shoes. Jake’s small shoe is sitting next to Daddy’s big work shoes. Jake points to Daddy’s shoe and says “Big shoe” with wide eyes. Daddy chuckles and says, “Right Jake. Daddy’s shoe is big and Jake’s shoe is little.” Daddy starts to pick up his shoes then pauses. He smiles at Jake and asks, “Which shoe is heavier?” Jake picks up each shoe one at a time. He carefully carries the heavy work shoe to Daddy. “Yes, Jake.” Daddy says, pleased that Jake could figure out the task. “Daddy’s work shoe is heavy and your work shoe is light.” The two head out the back door to dig in the garden.

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Child and adult interaction.

Communication/Literacy:

- Practices listening skills.

MATHEMATICS BASIC FOUNDATION 6

B.6 - Problem Solving

Problem Solving Through Exploration

According to the National Council of Teachers of Mathematics (NCTM, 2000), problem solving is a hallmark of mathematical activity. It is finding a way to reach a goal that is not immediately attainable. Infants and toddlers are natural problem solvers because the world is new to them. They show natural curiosity and flexibility as they face new situations. Young children want to find out more about the world they live in – they ask lots of questions. They actively explore their environment, taking apart and putting together again, and finding out how things work. Problem solving focuses on the child’s curiosity and ability to obtain, organize, and use information.

Young children are learning when they:

- B.6.1 Show interest in visual/auditory/tactile patterns.
- B.6.2 Show interest in something out of place, like finding a small object on the carpet
- B.6.3 Complete a word or phrase that repeats in a familiar song or story.
- B.6.4 Purposely move and manipulate different objects.
- B.6.5 Pour substances in and out of containers.
- B.6.6 Indicate a need.
- B.6.7 Search for something.
- B.6.8 Move to obtain an object
- B.6.9 Use a learned behavior in a new way.
- B.6.10 Separate objects.
- B.6.11 Put smaller objects into larger holes, slots, or depressions.
- B.6.12 Repeat a behavior that had previously caused a desired effect.
- B.6.13 Communicate discomfort.
- B.6.14 Put things in order.
- B.6.15 Anticipate and navigate around environmental barriers.
- B.6.16 Put pairs together.
- B.6.17 Identify when objects are the same.
- B.6.18 Search for something out of sight.
- B.6.19 Use active exploration to solve a problem.
- B.6.20 Take simple objects apart.
- B.6.21 Put simple objects together.
- B.6.22 Complete an inset puzzle of 3 or more pieces.
- B.6.23 See a simple task through to completion.
- B.6.24 Show pleasure or displeasure at an effect.
- B.6.25 Communicate disappointment.

A child can be supported by an adult who:

- Provides interesting objects in environment and changes the environment to stimulate interest in world around child.
- Realizes that children receive information best when they see, hear, and touch at the same time.
- Responds to needs of the infant.
- Plays guessing games about needs with older toddler to assist the child in gaining control over the environment.
- Puts safe objects in path of crawler to present problem-solving opportunity for child to obtain or move around the object.
- For the child who is eating solid food, provides cereal pieces and spoon and demonstrates use of spoon to gather food.
- Provides more challenging stacking/ nesting objects.
- Provides opportunities for child to estimate quantities of things and make predictions.
- Verbalizes observation of child’s play (e.g., “That cup holds lots of water”).
- Asks questions concerning the child’s activities (e.g., “How does that work?”).

How it looks in everyday activities:

Sara, a few months old, wakes up crying and ready to eat. Her mother Helen wakes up and quickly prepares a bottle for her daughter. Sara continues to cry until Helen picks her up and starts to feed her.

“There you go sweetie,” Helen croons to the baby. She uses a low soft voice as she tells Sara all about what they will do that day. Sara relaxes when she hears her mother’s familiar voice and feels her arms holding her in just the right way.

Although she is still very sleepy, Helen feels good that she is able to comfort her baby in a way that no one else can. From her experience with her older child, Helen knows that Sara will calm down as soon as she sees her mommy, even before she picks her up and starts to feed her. Helen knows that how she is with her baby right now helps Sara to learn to trust and have confidence.

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Bonds with parent for wants and needs.

Communication/Literacy:

- Learns listening skills of voice of parent.

Self Help:

- Initiates communication to indicate wants and needs.

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SCIENCE
BIRTH TO THREE

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BASIC FOUNDATIONS FOR SCIENCE

Infants and young children are natural scientists. Beginning at birth, babies use all of their senses in their efforts to understand and organize their environment and experiences. Through multi-sensory, firsthand, spontaneous, and repeated observations and direct experiences with materials, processes, and other people, babies gradually begin to formulate an understanding of what the world is, how it works, and their own place in it. This understanding will change over and over as the young child uses evidence gained from experiences much like the scientist supports or disproves a theory.

Through early science experiences, infants and toddlers:

- Develop trust in other people and a sense of personal effectiveness.
- Gain necessary, firsthand experiences with objects and other people that help to develop sensory, physical, emotional, intellectual, and social attributes.
- Develop basic concepts about physical and social environments (properties of objects and people).
- Increase observation skills.
- Receive opportunities to use their senses and curiosity to explore their environment.
- Use their bodies and materials found in everyday settings to act on objects.
- Are supported by adults to explore, wonder, reason, and solve problems.



KEY FINDINGS

- ◆ **Everybody can do science and invent things and ideas.** [*American Association for the Advancement of Science, 1993*]
- ◆ **Learning science is something children do, not something that is done to them.** [*National Research Council, 1996*]
- ◆ **Infants and toddlers are natural explorers and scientists. They are actively learning about the physical and social world everyday** [*Lally, J.R, et al. 1995*]
- ◆ **Caring adults can support or “scaffold” an infant’s and toddler’s active attempts to learn about the world by:**
 - ◆ **Paying attention to the child’s interests and intentions.**
 - ◆ **Arranging the environment so the child is better able to make contact with it.**
 - ◆ **Adjusting verbal and physical support to fit the child’s abilities.**[*Berk, L.E. & Winsler, A., 1995*]
- ◆ **Even infants are already doing the basic processes of science—observing, forming theories, making predictions, experimenting, and drawing conclusions from their observations and experiments.** [*Gopnick, A., Meltzoff, A.N., & Kuhl, P.K., 1999*]
- ◆ **Infants and toddlers become more curious, are more likely to explore, are better able to learn about the world when they are supported by sensitive caregivers they know well and with whom they feel secure.** [*National Research Council, 2000*]



SCIENCE BASIC FOUNDATION 1

B.1 - Scientific Inquiry and Process

Infants and toddlers are active explorers. They are able to learn about their environments through their senses, such as listening, hearing, touching, and hands-on experiences.

Intellectual curiosity is considered ‘the very source’ of science, because science activities provide opportunities for both learning and development (Hadzigeorgiou, 2001). Young children enjoy hands-on experiences with objects and materials. These early science experiences are fun for children and benefit all areas of their development. Both novel and familiar activities build concepts that can be used throughout life.

Young children are learning when they:

- B.1.1 Search and respond to sound and voice.
- B.1.2 Follow objects.
- B.1.3 Look at things within the environment.
- B.1.4 Use their five senses to learn about the environment.
- B.1.5 Recognize and discriminate the sight, smell, and sound of the principal caregiver.
- B.1.6 Show curiosity in objects and sounds.
- B.1.7 Find an indirect way to obtain an object.
- B.1.8 Repeat a behavior that had previously caused a desired effect.
- B.1.9 Manipulate objects.
- B.1.10 Get inside things to explore.
- B.1.11 Experiment with likes and dislikes of caregivers and other children (e.g., pulling hair).
- B.1.12 Ask questions through actions (e.g., pointing).
- B.1.13 Predict reactions from others (e.g., pulling hair).
- B.1.14 Anticipate and navigate around environmental barriers.
- B.1.15 Ask and answer simple questions.
- B.1.16 Communicate discoveries.
- B.1.17 Identify hot and cold in the environment.
- B.1.18 Identify sun and rain in the environment.
- B.1.19 Express ideas and share observations with others.

A child can be supported by an adult who:

- Follows a child's lead.
- Allows the child to explore, manipulate, and problem solve with ample time for practice and repetition.
- Provides sensory materials and experiences that are interesting and stimulating.
- Talks to the infant about things he is interested in, things he is doing, and things the adult is doing.
- Allows the infant to ‘mouth’ things.
- Promotes exploration by being available, aware of safety issues, and responsive to their cues.
- Provides reassurances and serves as a positive, exploring role model.
- Scaffolds: Notices what the infant is doing and then provides just enough assistance to facilitate continued learning.
- Asks questions that stimulate thinking and problem-solving (e.g., What if?).
- Encourages exploration by imitating the infant's actions.
- Extends the toddler's thinking and learning by imposing problems, making suggestions, responding to and encouraging the toddler's questions.
- Adds complexity or simplifies any task.
- Encourages the toddler to represent discoveries and ideas through a variety of ways (e.g., drawings, photos, discussions, pretending).
- Sets up experiments for toddlers (e.g., ice in the water table with other objects such as food coloring, plastic hammers).

How it looks in everyday activities:

Logan and Emma whispered excitedly to each other as they watched Mrs. Glen bring out a large bowl of ice. Mrs. Glen said, “Boys and girls, here are some tongs, spoons, containers of warm and cool water and lots of other things. You can use all of these materials to experiment with ice and water today.”

The children could hardly wait to start trying out different activities with the materials! Logan started dropping ice pieces into different containers of water, watching the water splash each time.

Emma found a big wooden spoon and stirred the ice in the large bowl, enjoying the crashing noises and the sight of the ice pieces flying up and out of the bowl. As she stirred, Emma noticed something. “Hey Logan!” she said, “The ice in the big bowl is turning to water!” “Yeah,” Logan added, “It melts when it gets warm.” Emma saw a large eye dropper and found that she could suck the water from around the cubes and then squeeze it back into the bowl or another container. Logan came nearer and watched Emma, saying “I want a turn with that next.”

Mrs. Glen watched Emma working and Logan watching. She knew that Logan, who has some difficulty with fine motor tasks, would be frustrated with the eye dropper. “Logan, why don’t you help Emma get the water out?” she asked. “You can use one of these,” she added showing him a baster and a small ladle. The children worked together to clear the melted ice from the bowl.

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Children playing side-by-side.
- Works cooperatively.

Physical:

- Uses small motor skills in picking up objects.

Communication/Literacy:

- Communicates with peer.

Self-Help:

- Experiences cold sensation.

SCIENCE BASIC FOUNDATION 2

B.2 - The Living Environment

Babies and toddlers need repeated multi-sensory opportunities to learn about their environments through child-directed and adult supported explorations and interactions.

There are many different kinds of environments that serve as natural science laboratories. Young children need to have unstructured time in these different environments to allow them to repeat activities over and over. Examples of science environments include home, child care centers, libraries, stores, zoos, museums, and playgrounds. Within these environments children have opportunities to be natural explorers as they learn about people, places, and things.

Young children are learning when they:

- B.2.1 Seek interaction and enjoy social play (e.g., patty cake).
- B.2.2 Explore objects by touching, shaking, banging, and mouthing.
- B.2.3 Show fear of falling off of a high place.
- B.2.4 Look for a toy that has rolled out of sight.
- B.2.5 Resist separation and seek reassurance from trusted caregiver when encountering an unfamiliar person or object.
- B.2.6 Listen when caregiver describes what the infant is doing with objects and imitates the caregiver.
- B.2.7 Get into everything and require constant supervision.
- B.2.8 Activate simple machines or cause and effect toys; take toys apart.
- B.2.9 Push or pull objects while walking.
- B.2.10 Repeat a behavior that had previously caused a desired effect.
- B.2.11 Enjoy filling and dumping activities.
- B.2.12 Resist adult's direction or agenda by testing limits.
- B.2.13 Actively explore the entire environment, indoors and outdoors, with high energy.
- B.2.14 Show an interest in interacting with pets and participate in their care with assistance from caregiver.
- B.2.15 With some guidance, use toys and tools safely and store them in the proper place

A child can be supported by an adult who:

- Plays patty cake, peek-a-boo, and hide and seek.
- Provides objects that are fun to poke, squeeze, manipulate, with different textures, shapes, and sizes.
- Provides containers that can be opened and closed, nested, or smaller objects that can be dropped into larger ones.
- Offers choices ("which shirt will you wear today?") to support growing need for independence.
- Encourages riding toys to gain sense of self in space.
- Offers opportunities for messy play, such as water or sandbox.
- Provides tools and toys for the child to use when exploring the environment (e.g., buckets, shovels, water).
- Takes child on walks or rides, describing what they see.
- Models imitation of the sounds and actions of objects, animals, and people (e.g., teach finger plays to encourage imitation).
- Helps infant develop a sense of trust and security by sensitive responding.
- Places babies in new places and new positions (avoids too much time in a play pen, walker, swing).
- Provides experiences related to the study of earth materials, patterns, and change (e.g., water, rocks, dirt, snow).
- Provides opportunities for infants to smell different smells (e.g., lemon, apple juice, grass).
- Exposes toddlers to a variety of tastes and temperatures in food (e.g., warm oatmeal, cold sherbet); encourages self-feeding.

How it looks in everyday activities:

Three-month-old Alicia lies on a blanket in her living room. Her dad, Mike, sits near her while her mother, Cindy, rests on the couch. Older brothers wrestle and laugh across the room. Alicia's eyes are alert and she turns them in the direction of the sounds her siblings make. She turns her eyes back to her dad when he says, "Hi baby Alicia." She smiles and moves her arms and legs. After a moment, Alicia looks away then looks back again. "Stick your tongue out at her," says Cindy, "and she'll copy you." Mike tries it to the delight of the big brothers who cluster around to see what their baby can do.

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Eye contact; social smile; early turn taking.

Physical:

- Moves arms and legs; use of senses through eyes and ears.

Communication/Literacy:

- Attends to language.

Self-Help:

- Turns away to regulate stimulation.

SCIENCE BASIC FOUNDATION 3

B.3 - The Nature of Science and Technology

Sharing Observations and Discoveries

Babies and toddlers want to share the things they know, see, and that attract their interest. They are rapidly developing skills that allow them to predict, classify, and categorize the many experiences and routines that are occurring around them.

As babies and toddlers explore their world and interact with others, they gain and organize knowledge. Interactions with caring adults provide a scaffold that allows the child to clarify ideas, practice what was learned, and begin to apply this information to new situations.

Young children are learning when they:

- B.3.1 Move from primarily reflex actions to doing things on purpose.
- B.3.2 Cry to express displeasure.
- B.3.3 Follow a moving object or person with eyes.
- B.3.4 Focus eyes on small objects and reach for them.
- B.3.5 Listens to others' conversations.
- B.3.6 Imitate adult facial expressions and simple actions.
- B.3.7 Explore objects with various properties (e.g., color, sound, texture, shape).
- B.3.8 Hold a crayon or marker and scribble.
- B.3.9 Imitate something heard or seen earlier in the day (delayed imitation).
- B.3.10 Enjoy simple pretend play.
- B.3.11 Label and describe familiar objects.
- B.3.12 Notice details in objects.
- B.3.13 Talk to self to solve problems.
- B.3.14 Repeat an action after adult demonstrates it.
- B.3.15 Sort and match objects by more than one attribute.
- B.3.16 Use words to describe physical attributes of objects (e.g., size, color).
- B.3.17 Use words to describe processes and actions (e.g., fast, wet, hot).
- B.3.18 Make representative drawings of familiar objects and people.

A child can be supported by an adult who:

- Asks good questions that help children make and evaluate a plan (e.g., "What could we do?" "What will happen next?").
- Has a regular, daily routine that builds the ability to predict events.
- Scaffolds the child's learning by breaking down tasks into steps and reminding of the next step by giving indirect suggestions rather than giving the answer.
- Allows lots of time to work on problems—doesn't offer help too soon (e.g., offer toys with moving parts).
- Allows the child to experience the consequences of actions (when safe). Then talk about what happened and why.
- Reads a variety of books to the child everyday and uses the words from the book in everyday conversations.
- Models reading /writing /drawing for and with the child.
- Encourages play with safe mirrors.
- Plays a simple game of "find" (e.g., "I spy with my little eye").
- Adds new information to what a child is saying (e.g., "Yes, that's a blanket, a soft, warm blanket.").
- Avoids making models of clay or drawing pictures for the child to copy.
- Talks clearly and calmly with the child about what they are doing.
- Imitates and encourages the child's attempts to make sounds or says words.
- Provides materials of appropriate and safe size for sorting (e.g., colored blocks) and something to sort them into (e.g., muffin tin).

How it looks in everyday activities:

Abby, age 22 months, visits her grandmother with some cousins. The cousins, who are older, go outside to fish in the creek. Abby reaches up to Grandma and says, "Water." "Are you thirsty?" asks Grandma, picking her up and walking to the cabinet. "Here's a cup, let's get a drink." Abby looks out of the window where she can see the cousins with fishing rods standing near the creek. She points outside and says again, "Water." Grandma follows Abby's look. "Oh you want to go outside to the big water," she says as she carries Abby outside. Abby smiles, satisfied, and repeats "big water" several times. Outside, Elise shows Abby a small fish. Abby's eyes are wide and she holds tight to Grandma. Elise says, "It's just a fish! See? We're gonna let it go back to the water." Abby gets down and walks nearer the water. She looks down at the water where the fish disappeared and quietly says "Ish. Water. Big water."

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Holds grandmother when frightened.
- Attends to activities of others.

Physical:

- Walks; reaches; adjusts when carried.

Communication/Literacy:

- Uses pointing to communicate.
- Uses words to make a request and comment.
- Repeats what others say.

Self-Help:

- Persists in getting needs met.

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SOCIAL STUDIES
BIRTH TO THREE

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BASIC FOUNDATIONS FOR SOCIAL STUDIES

Social studies is the study of people, relationships, and cultures. It looks at how people live today and in the past, work and get along with others, become good citizens, and how they are affected and affect their environment. The primary purpose of social studies is to help people develop the ability to make informed and reasoned decisions for the public good as citizens of a culturally diverse, democratic society in an interdependent world.

Social studies for infants and toddlers helps young children learn through their senses and experiences about physical location (body awareness) and physical time, social-emotional competence, and personal responsibility. For young children, social studies is emphasized through relationships. Beginning at birth, a baby learns whether he can trust his or her parents to meet needs. As very young children have experiences in their home and environment they will be able to build more accurate concepts of history, geography, government, and economics. These concepts are built around the child's personal experiences and understanding the relationship of self and others.

A young child's social competence is an important part of development. This means being inclined to seek out or enjoy the company of others. It is the willingness to interact with adults and others. Social competence is related to learning about others and their cultures and getting along with others. The quality of a young child's social competence can be a predictor of later social and academic competence (Pellegrini & Glickman, 1990).

The social studies foundations will assist adults with ideas to help infants and toddlers learn about their world, both physical and social. This information will lay the foundation for building positive relationships and success academically and socially later in school.

KEY FINDINGS

- ♦ Infants learn about the world through touch, sight, sound, taste, and smell. They learn about relationships from how people touch and hold them, and from the tone of voice and facial expressions people use when caring for them. *[DeBord, K. 1996]*
- ♦ Children have natural curiosity. They show curiosity about things from the past. This curiosity can be used as the foundation for historical understanding. *[Fromboluti C.S. & Seefeldt. C., 1999]*
- ♦ Young children learn about social studies first hand by being members of a family, community, and school where they live, work, and share with others. *[Dodge, D.T., Colker, L.J. & Heroman, C. 2000]*
- ♦ Children who achieve social competence by the time they are in kindergarten are more likely to succeed academically and socially in later grades. *[Katz & McClellan, 1997]*
- ♦ Young children learn through their senses and experiences. They ask a million questions. *[Fromboluti, C.S. & Seefeldt, C., 1999]*



SOCIAL STUDIES BASIC FOUNDATION 1

B.1 - History

Developing physical time is a forerunner to historical knowledge. Daily experiences that are recurring, sequential, and part of a regular routine are important for young children to begin understanding time. Young children can also be introduced to family celebrations and holidays in connection with family history and values. Young children are not ready to conceptualize chronological history. The first step is to begin with awareness of time. Understanding hours or days is difficult and will come later in development. Many children show curiosity about things from the past before formal school, and this curiosity can be used to begin the foundation for historical understanding.

Young children are learning when they:

- B.1.1 Cooperate with a routine.
- B.1.2 Anticipate a sequence during daily activities.
- B.1.3 React to new situations based on memory of a previous event.
- B.1.4 Listen to stories about people and places.
- B.1.5 Recognize when caregiver is not present.
- B.1.6 Look at picture books with interest.
- B.1.7 Direct attention to familiar objects and people.
- B.1.8 Identify other people and their roles.
- B.1.9 Recognize the beginning of an event (e.g., come to table when food is placed there).
- B.1.10 Recall immediate stories/events and begin to develop sequence of happenings.
- B.1.11 Recall details from immediate past. (At about one year, the child may remember things for 1-2 days.)
- B.1.12 Use own vocabulary to relate experiences (e.g., any event happening in the past is referred to as happening yesterday).
- B.1.13 Notice likeness and differences in others.

A child can be supported by an adult who:

- Establishes a routine and discusses ideas with child.
- Reacts to child's actions and understands a young child's cues (communication).
- Talks to child about what happened "last night" and "this morning."
- Presents pictures in sequential order.
- Reads and tells stories and nursery rhymes and discusses them with child.
- Assists the child in periods of transition (e.g., bedtime, naptime, attending preschool or child care).
- Encourages the child to recall information about the immediate past.
- Includes child in family celebrations, holidays, and family history (stories, songs).
- Takes photos of the child and family and talks about the pictures.

How it looks in everyday activities:

Mrs. Chan tucks Tommy in bed for the night and Mr. Chan stands nearby holding a book for his nighttime story. Although he is not yet three, Tommy knows and takes great comfort in the familiar routine of bath, pajamas, and brushing teeth, ending with a snuggle and a story.

“Tommy, what did you do today?” Mr. Chan asks his son. Tommy thinks and Mrs. Chan helps him to recall that they went to the library, played in the park, had a nap, and played with trucks. “That sounds like a fun day, Tommy”, says his dad. “I wonder what you will do tomorrow?” he asks. “Swim with Mommy and Jack and his mommy!” Tommy shouts happily. “Plans already?” laughs Mr. Chan.

“Well what do we do now?” Mrs. Chan asks Tommy and Mr. Chan. “Is it lights out?” “No” Tommy shakes his head. “It is time for story.” “That’s right Tommy,” Mrs. Chan says, and completes the family routine.

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Enjoys child and adult interaction.
- Follows a routine.

Communication/Literacy:

- Answers questions.
- Discusses sequence of events.

SOCIAL STUDIES BASIC FOUNDATION 2

B.2 - Civics and Government

At a young age, children can begin to understand that every person is responsible to themselves as well as to others, and that all choices have consequences. Participating in a democracy involves making informed choices. Young children who have many opportunities to make choices in their own lives when given options are growing in this important process skill. Understanding the need for and being able to follow rules is an important developmental step for young children.

Young children are learning when they:

- B.2.1 Help feed themselves.
- B.2.2 Watch people.
- B.2.3 Around one year, offer toys or objects to others but expect them to be returned.
- B.2.4 Show interest in other children.
- B.2.5 Communicates “no.”
- B.2.6 Assist with daily needs (washing hands, toileting, brushing teeth, assisting with meal preparation).
- B.2.7 Assist with simple chores on a daily basis.
- B.2.8 Around two, show self as “doer” (e.g., explore everything, be assertive in preferences, and increase range of self-help skills).
- B.2.9 Develop the process of “play” from playing alone to playing alongside, then playing with someone else around age three.
- B.2.10 Follow simple directions.
- B.2.11 Respond positively to options rather than commands.
- B.2.12 Listen to stories about helping.
- B.2.13 Pay attention to conversations.
- B.2.14 Push away something not wanted.

A child can be supported by an adult who:

- Demonstrates how the child can use words instead of force to obtain something.
- Models sharing and modeling the behaviors you want to encourage (e.g., say please or lend a helping hand).
- Supports individuality by providing choices whenever possible (e.g., “You have to change your shirt, but you can choose the red one or the green one”).
- Asks for the child’s help with daily tasks, and accepts their offer of help.
- Allows time for the child to discuss behavior and circumstances.
- Does for, does with, and watches as the child learns to do things independently.
- Establishes limits for child’s behavior to provide a physically and emotionally safe environment.
- Develops positive rules with the child for understanding and ownership.
- Talks about the reason for rules.

How it looks in everyday activities:

Maria provides child care for her sister Louisa's son Juan, age 30 months. Today she has set up a play date with Juan's friend Cody. "What do you think Cody will like to play with?" Aunt Maria asks Juan. Juan thinks and says "Trucks and cars," which are his favorites too. Aunt Maria and Juan get out a variety of cars, trucks, and a garage to play with. Maria realizes that it can be hard for two year olds to share, so she makes sure to have several duplicate toys and she puts away Juan's very favorite truck for another time.

While Juan and Cody push the cars around the track, Aunt Maria prepares a snack for the boys. She helps the boys put the cars and trucks away before calling them to the table for a snack. Aunt Maria says to the boys, "After a snack, maybe you would like to play outside for a while." The boys look at each other with excitement. "Swings," says Juan and "Slide," Cody adds. The plan is made.

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Tolerates being physically near others.
- Plays alongside another child.

Communication/Literacy:

- Initiates communication.
- Follows simple directions.

Self-Help:

- Participates in clean up routine.

Physical:

- Uses fine motor skills.

SOCIAL STUDIES BASIC FOUNDATION 3

B.3 - Geography

Location (Spatial Awareness)

One of the first tools geographers use is location. This tells us where something is. Young children are geographers. They dig in the sand, pour water, and watch rain fall. They try to find out about the nature of the world and their place in it. Young children learn that they relate to other people and things. To help children learn location, they need to develop body awareness including its size and level when upright, crawling or stooping, or on the floor, the different body parts and how their body moves in different directions like forward, backward, or sideways. When they know how their body moves, they will have the basics for learning directions and locations later in life. The more opportunities children have to run and move about, the greater their ability to keep track of position and location.

Young children are learning when they:

- B.3.1 Use sight, sound, taste, touch, and smell to explore their world.
- B.3.2 Turn toward bright lights and sounds.
- B.3.3 Follow simple directions.
- B.3.4 Around 2 or 3, point out signs that indicate location.
- B.3.5 Observe weather, location of familiar places, and different ways of travel while on neighborhood/community walks.
- B.3.6 Identify and locate familiar places.
- B.3.7 Name and locate eyes, ears, or nose when asked.
- B.3.8 By age two, distinguish between near and far.
- B.3.9 Notice features of immediate surroundings (e.g., bedroom, yard).
- B.3.10 Finds ways to maneuver around an obstacle that is in the way of obtaining something desired.
- B.3.11 Use blocks to represent roads and buildings.
- B.3.12 Become familiar with the idea that maps help people locate themselves in space.

A child can be supported by an adult who:

- Provides a safe and comfortable space for the child to explore environment.
- Provides activities that encourage the child to explore the space around him or her (reaching, batting, tummy time, stroller rides).
- Plays simple games using various directional words (e.g., up, down, forward, backward).
- When traveling, uses directional terms (e.g., “We will turn left at the next street”).
- Teaches positional words when doing household tasks (“Please put your toys INTO the yellow basket.”)
- Allows the child to assist you when using maps or globes.
- Uses songs to teach geography (London Bridge).
- Asks the child questions about what you both are seeing.
- Travels in different ways with the child (bus, car, train).
- Comments daily on the weather and points out changes.
- Names items in the home and in the environment during nurturing routines.

How it looks in everyday activities:

Mary provides child care in her home for several toddlers. On this rainy day, she has set up an obstacle course in the play area. They are large boxes, a tunnel, and some pillows. She drapes some soft scarves across some chairs so the children can crawl under and between them. Mary hopes the young children will enjoy the active play, learn about directions, and learn some body parts.

When Tim, Tina, and Katie arrive, Mary tells them there is a surprise in the play room. Tim and Tina are pleased, and Katie is a little hesitant as always. Mary takes Katie by the hand, and they all walk into the play area. Tim and Tina run right away and start moving through the different areas. Mary sits with Katie on her lap. She begins to talk about what Tim and Tina are doing. “Oh Tina went under the green scarf!” she says. “And now look! Tim is putting his feet in the big box.” Katie looks back and forth at the children and Mary. Mary is pleased to see Katie looking at her own feet when she talks about Tim’s feet. She knows that Katie can learn by watching, and that she will enter the play when she feels ready. Sure enough, after a few minutes, Katie gets up and walks close to the pillows. She sits down on one and then slowly starts crawling under a scarf. Katie giggles and smiles at Tina, then climbs into a box, as Mary softly narrates her actions.

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Plays alongside other children.

Communication/Literacy:

- Communicates with the adult.
- Uses new words to describe body movements.

Self-Help:

- Participates in clean up routine.

Physical:

- Engages in a physical activity.
- Uses large motor skills.

SOCIAL STUDIES BASIC FOUNDATION 3

B.3 - Geography (continued)

Places

Young children first begin by learning about their home environment. Just like people, places have a lot in common, but no two are exactly alike. Children will begin noticing how their homes and buildings look. When children learn about trees, streets, and their homes, they see that they live someplace special.

Young children are learning when they:

- B.3.13 Explore things with mouth, hands, fingers, and toes.
- B.3.14 Recognize familiar places.
- B.3.15 Describes simple features of familiar places.
- B.3.16 Give the name of home city or town.
- B.3.17 Give information about home (e.g., street name, house description).
- B.3.18 Use words such as hard and soft, rough and smooth, and water and land.
- B.3.19 Show fear of falling off high places such as stairs.
- B.3.20 Match objects to location such as stove to kitchen, bed to bedroom.

A child can be supported by an adult who:

- Describes environment with sensory words (e.g., hard/soft, rough/smooth, water/land).
- Provides an environment rich with sounds, smells, sights, and tastes.
- Talks about the stores and buildings visited and what is in them.
- Helps the child make a simple map of the neighborhood, house, or school.
- Discusses some of the basic natural features of the earth in the child's immediate environment (e.g., river, pond, woods, fields).
- Provides the child many opportunities to explore and experience the natural world.
- Provides the child with materials and opportunities to draw what the child sees in and around the home environment.

How it looks in everyday activities:

On a warm afternoon in September, Tricia decides to take her 27 month old twins Carla and Sam to the park to see the colorful leaves. She chooses an accessible park since Sam still has some limitations in his mobility. The park has good surfaces for pushing Sam in a stroller, and he will be able to see older children being active in wheel chairs, which he will soon start learning to use himself.

Carla walks in the grass and crunches leaves underfoot. "Look Mommy," she says holding up a red leaf. Tricia says, "Yes, the leaves are changing colors. They were all green just the other day." Carla gives a leaf to Sam, who looks at it closely, turning it over and feeling the edges. Sam sees a squirrel running up a tree with an acorn in his mouth. He points to the squirrel, showing his find to his mom and sister.

Tricia helps Sam out of the stroller, and they all sit for a while in the grass, watching the leaves and feeling the sun. Sam moves a little away and finds several acorns and some walnuts on the ground. He looks at the nuts and pretends to put one in his mouth like the squirrel. Carla and Tricia laugh with Sam. He looks over to the tree where he had seen the squirrel, then carefully puts the nuts in a pile. Carla watches him and lays a leaf on top of the pile. Tricia nods at their work and says, "Are you leaving the squirrel some nuts to find for dinner?" "Good dinner," says Sam and they pack up to leave.

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Child and adult are interacting and playing with each other.

Communication/Literacy:

- Learns listening skills from adult.

SOCIAL STUDIES BASIC FOUNDATION 3

B.3 - Geography (continued)

Physical Systems

Young children are fascinated with weather. We experience weather everyday. Young children become aware of the weather and how it affects people. Weather is an important part of learning about our world.

Young children are learning when they:

- B.3.21 Explore things with mouth, hands, fingers, and toes.
- B.3.22 Recognize familiar places.
- B.3.23 Talk about weather and its relationship to appropriate clothing/activities.
- B.3.24 Show comfort and discomfort with the temperature of the room or when outdoors.
- B.3.25 Talk about and be curious about the weather (e.g., temperature, rain, snow, climate inside and outside).
- B.3.26 Notice that people wear different types of clothing depending on the weather.

A child can be supported by an adult who:

- Talks about the sunshine or rain, the heat or the cold, and how to dress for weather.
- Talks about clothing choices with the child based on the weather.
- Takes the toddler for a walk when it is windy, raining, or snowing and talks about the experience.
- Identifies seasons of the year (e.g., snow, leaves falling).
- Talks about the clouds.
- Notices child's comfort with the environment (e.g., is child hot or cold, sweating or shivering).
- Dresses the child considering the temperature conditions inside and outside.
- Is flexible with routines that are affected by the weather.
- Watches the weather forecast on TV with the child.

How it looks in everyday activities:

Zack, age 22 months, looked out the window and saw the clean white snow falling hard on the trees and ground. His big sister Gracie yelled, “Mom do we have school today??”

“I don’t think so,” Mommy answered, “but let’s turn on the television and check for school closings.” The weatherman was standing in front of a map, pointing to red and blue lines. He talked about the weather that day and what to expect the next day. Gracie cheered when she saw the name of her school scroll across the bottom of the screen. “It’s a snow day, Zack,” she crowed. “Snow day!” Zack repeated, matching his sister’s happiness.

After breakfast Zack and Gracie got ready to go outside in the snow. They put on warm clothes and boots. Zack did not want to wear his hat, but Mommy explained how cold the snow would feel, so he put it on. Outside Zack touched the cold snow. Gracie showed him how to make and throw a snow ball. “Watch me,” Gracie said, laying in the snow and moving her arms and legs. “I’m making a snow angel.” Zack watched and tried to do the same. His nose was bright red and his teeth started to chatter, but Zack did not want to go in. Finally, Mommy insisted and they went inside to warm up. While drinking his hot chocolate with marshmallows Zack said “Good snow day.”

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Child and adult are interacting and playing with each other.

Communication/Literacy:

- Learns listening skills from adult comments.
- Asking questions and talks about changing seasons, trees, and animals.

Physical:

- Walking and running.

SOCIAL STUDIES BASIC FOUNDATION 3

B.3 - Geography (continued)

Human Systems

Parents are children's first teachers and their positive relationship forms a solid basis for all other social interactions. Young children begin to understand that they live in a family that may include parents, siblings, extended family members such as grandparents, and even pets. As they spend time in their neighborhoods and community settings such as places of worship, young children will begin to learn that families have different people, foods, rules and routines.

Young children are learning when they:

- B.3.27 Recognize the faces and voices of the key people (e.g., parents, grandparents, brothers and sisters, child care givers) in their lives.
- B.3.28 Prefer to look at faces of key people.
- B.3.29 Demonstrate fear, caution, or curiosity with new people depending on age and temperament style.
- B.3.30 Protest separation from primary caregiver between age 12 and 18 months.
- B.3.31 Pretend to take care of a doll by feeding and other activities.
- B.3.32 Draw pictures of their family.
- B.3.33 Play the role of different family members through dramatic play.

A child can be supported by an adult who:

- Says good-bye when leaving the child rather than sneaking out.
- Points family members out from photos.
- Helps the child identify and name family members and their relationships and roles.
- Assists the child in making a family book with pictures and drawings of members.
- Tapes recordings of grandparents reading the child's favorite stories.
- Talks about ways your child is the same or different from other children.

How it looks in everyday activities:

Denise and Luis are best friends and next door neighbors. Their mothers like to share child care so each one can have time for errands each week. One Tuesday the children are at Luis' house for lunch. Gabriella, Luis' mother, has prepared a dish from Puerto Rico, tostones, which are fried plantains.

Denise looks doubtfully at the tostones, which she has never tried. "I don't think I like it," she says. "It's good," Luis says, taking a bite. "I'll eat yours if you don't want it," he adds helpfully. "Maybe you can try a small bite," Gabriella suggests. "If you don't like it, you can always have a peanut butter sandwich."

"I can take a little bite" Denise agrees and does. "Hey this is good!" she says, surprised. "Can you teach my mom to make it?"

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Expresses preferences, likes, and dislikes.
- Tries something new at friend's suggestion.

Physical:

- Uses utensils to eat.

SOCIAL STUDIES BASIC FOUNDATION 3

B.3 - Geography (continued)

Environment and Society

Young children want to be an active part of their family and community. At home, they may enjoy helping with a simple chore, such as helping to feed a pet, putting clothes in a hamper, or picking up toys. They can also begin to recognize the need to care for the environment by learning about recycling or helping to clean up a community area, such as a park.

Young children are learning when they:

- B.3.34 Recognize things that do not belong in the environment (litter).
- B.3.35 Place trash in the wastebasket.
- B.3.36 Help clean up after doing an activity.
- B.3.37 Help with routines that keep the house neat.
- B.3.38 Alert others to a messy environment.
- B.3.39 Name some bad things that people do to our environment.

A child can be supported by an adult who:

- Talks with the child about caring for the environment.
- Helps the child understand environmental vocabulary (e.g., litter, purpose of trash cans).
- Assists the child with keeping room or space neat.
- Gives the child help in sorting items to recycle.
- Shows the child examples of clean and safe environments and compares them to areas not so safe and clean.

How it looks in everyday activities:

Joey and Mike, twins 30 months old, love dogs. Their dad, Marty, takes them to a friend's house one Saturday to pick out a puppy. The boys are excited to see their new pet. On the way to pick up the dog, Marty talks to the boys about pets and the chores that families who have pets need to do. "We have to check to see if our dog needs water and food," Marty says. "Drink milk," Joey suggests. "Well, no," Marty says, "Dogs like water." "OK," Joey smiles.

They arrive at the house and go inside. There are several yellow lab puppies running around in the kitchen. The boys squeal with excitement and run around with the puppies. The mother dog watches them closely as the boys gently pet the puppies. Marty touches Mike on the shoulder and signs "dog" several times. Mike, whose speech is coming a little slower than Joey's signs "dog" too. Joey signs and shouts "dog" several times as Marty completes the arrangements to take their new pet home.

At home, Marty helps Joey and Mike pour some food into the puppy's dish. "Puppy eat," Joey says and Mike signs "eat." Marty fills a bowl with water and sets it near the food. He goes into the other room, and the boys stay to watch their new friend eat. The puppy empties his bowl, and Mike carries it into the other room to show Marty. He signs "more." "Thank you," Marty says, "you know how to do this job!"

Development of a skill in one area is related to and influences other developmental areas:

Cognitive:

- Solves a problem by gaining adult help.

Communication/Literacy:

- Participates in conversation using words or signs.
- Informs another person about an event.

Physical:

- Carries an object while walking.

SOCIAL STUDIES BASIC FOUNDATION 4

B.4 - Economics

At a young age, children can begin to understand how families work together to meet their basic needs and wants for trust, safety, nurturance, food, and fun. Through senses and experiences, young children gain a beginning understanding of the role of money in purchasing and the connection between work and money. Adults play an important role in helping highlight these connections for very young children through their consistent behavior and responses.

Young children are learning when they:

- B.4.1 Choose between two or more alternatives.
- B.4.2 Prefer objects that can be held or touched and that can satisfy people's wants.
- B.4.3 Demonstrate awareness of activities that can satisfy people's wants.
- B.4.4 Assist and use money in purchasing goods.

A child can be supported by an adult who:

- Uses the names of coins and currency and provides opportunities for becoming familiar with coins and currency.
- Involves the child in using real coins and currency in everyday situations.
- Provides the child with a bank for saving coins.
- Supplies the child with materials for role-playing of different occupations.
- Takes the child to work and lets the child see you producing goods or services.
- Travels through different economic sections of the community (e.g., mall, harbor, bread factory).
- Discusses with the child the origin of items in the home (e.g., milk-cow, wooden table-tree, egg-chicken).

How it looks in everyday activities:

While Jerome takes his afternoon nap, his mother LaDonna makes a grocery list. She knows that he will be ready for an outing when he wakes up. As she gets his coat on, LaDonna talks to her son about the store and what they need to purchase.

LaDonna buckles Jerome into the cart and then takes her time walking up and down the aisles. She points out the things she will choose, so Jerome can look and see all the different things at the grocery. “Jerome, we need some fruit for lunch tomorrow,” LaDonna says. “I think Daddy will like an orange.” As Jerome nods in agreement, she hands him an orange so he can feel the bumpy rind and smell the citrus aroma. Later, LaDonna holds up two different types of cereal and helps Jerome choose one.

At the check out, LaDonna lets Jerome put some items on the counter. The cashier is friendly and Jerome smiles shyly at her. As the total is rung up, LaDonna points out the numbers on the cash register and says, “That’s how much money we need to pay the lady.” Jerome looks interested as LaDonna takes the cash from her purse and receives her change. As they walk toward the door, Jerome smiles and waves good bye back to the cashier.

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Makes a choice between two objects.
- Responds appropriately to a social greeting.
- Participates in a family routine.

Communication/Literacy:

- Increases vocabulary.
- Responds to adult language.

SOCIAL STUDIES BASIC FOUNDATION 5

B.5 - Individuals, Society, and Culture

Getting Along

Young children thrive with routine, structure, and rules. Parents and other caregivers help young children learn boundaries by teaching expected behavior in the family and community. Providing opportunities to participate in many different settings (home, places of worship, stores, libraries) and events (shopping, taking a class, seeing a parade) helps young children develop a repertoire of appropriate behaviors.

Young children are learning when they:

- B.5.1 Recognize gender differences.
- B.5.2 Ask questions about physical differences.
- B.5.3 Take turns in interactions with others.
- B.5.4 Share belongings with others.
- B.5.5 Value the importance of caring for others.
- B.5.6 Work and play cooperatively with others.
- B.5.7 Use words to express feelings.
- B.5.8 Use thinking skills to resolve conflicts.
- B.5.9 Demonstrate early pretending with objects
- B.5.10 Use words to express family relationships, such as mother or grandpa

A child can be supported by an adult who:

- Gives the child opportunities to be with many other children.
- Models treating others with respect and fairness.
- Discusses with the child physical characteristics and how they can be similar and different.
- Sets and enforces limits and boundaries.
- Rewards positive behaviors.
- Provides opportunities to be with extended family members.
- Listens to expressions of feelings.
- Gives opportunities to make appropriate choices.

How it looks in everyday activities:

Ms. Cathy and Ms. Shelly work in the toddler room of a community based childcare program. The young children in the room are just starting to experience feelings of independence and a desire to do things for themselves. Marshal, a new walker and new to the toddler room, walks then drops and crawls closer to Barbie. She is playing with a large truck, pushing it back and forth and making “vroom” sounds. Marshal watches Barbie closely, and Ms. Shelly watches Marshal. Ms. Shelly whispers to Ms. Cathy, who is holding Bernard, “I think Marshal is thinking about trying to take that truck from Barbie.” “I hope not,” Ms. Cathy replies, “Barbie will fight back.”

Ms. Shelly gets another large truck and pushes it over toward Marshal. “Marshal, I think you want to play trucks with Barbie,” she says. She pushes the truck next to Barbie, modeling how to make the “vroom” sounds. Marshal watches her and the truck. Ms. Shelly waits for Marshal to make a request in some way, such as a gesture or even a word. When he reaches a hand out to the truck she says, “Yes, you want a truck,” as she pushes the truck to him. Marshal pushes the truck and approximates the “vroom” sound. He smiles as he pushes his truck next to Barbie. Barbie notices Marshal next to her and says, “Truck.” Both toddlers smile and continue to play side by side. The teacher continues to walk around the room, observing the children and looking for opportunities to support positive social actions.

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Engages in side by side play.
- Responds to a social overture.

Communication/Literacy:

- Uses a gesture to make a request.
- Attends to an adult’s communication.

Physical:

- Moves from crawl to stand to walk.
- Operates a toy while sitting.

SOCIAL STUDIES BASIC FOUNDATION 5

B.5 - Individuals, Society, and Culture (continued)

Cultural Diversity

Infants and toddlers are extremely egocentric and primarily relate only to their own experiences. They have a limited but growing ability to consider the needs and wants of others. Parents and other caregivers who talk in positive ways about characteristics of individuals and groups will help the young child start to notice and appreciate, with pleasure, the similarities and differences between themselves and others.

Young children are learning when they:

- B.5.11 Recognize differences between people of different cultures and abilities.
- B.5.12 Realize that other children are more alike than different.
- B.5.13 Realize that different families live in different types of housing.
- B.5.14 Recognize community helpers.
- B.5.15 Say please and thank you.
- B.5.16 Learn social skills.
- B.5.17 Notice that some people talk differently from others.
- B.5.18 Comment on or ask questions about physical differences.

A child can be supported by an adult who:

- Uses holidays to provide opportunities for the child to learn about the customs of people around the world.
- Offers the child opportunities to taste different ethnic foods.
- Shares stories, songs, and poems about different cultures.
- Models respect and interest in other cultures.
- Talks about differences and similarities between people, cultures, and countries in positive ways.
- Gives support to a child's interest in different cultures by providing opportunities to learn about different language, foods, and activities.
- Shares stories, songs, poems, and other material about different cultures.

How it looks in everyday activities:

Mr. Matthews and his son Nelson were driving to the airport to pick up Mrs. Matthews, who was returning from a business trip to Mexico.

“Nelson, do you know Mommy was in another country where they speak Spanish?” Mr. Matthews asked. “Like Dora?” Nelson wondered, thinking of one of his favorite children’s programs. “Right. They speak Spanish in Mexico like Dora does.” Mr. Matthews agreed. “And other things are different, like foods and music,” he explained.

The conversation continued when Mrs. Matthews arrived. Mrs. Matthews told Nelson there are lots of countries and people speak many languages and have many different customs. She showed him some money that she had brought from Mexico and said, “Can you remember when I went to France a few months ago? The people there speak French and I brought some different money and other things.” Nelson listened but seemed confused. As they were driving, Mr. Matthews remembered that there was an Ethnic Expo going on nearby. Since they planned to go out for dinner anyway, they decided to stop there to see if they could try some different foods and help Nelson understand about different countries.

At the Expo, there were many booths with different foods, a stage with music from many countries, and people dressed in colorful traditional outfits. The family saw a booth with Mexican food and decided to try it. Nelson enjoyed his burrito. Nelson tried on a sombrero and hit a piñata. The family walked around, trying some Greek and Chinese foods as well. Nelson played a game from Russia and listened to music from Africa. On the way home Nelson asked, “Mommy can I come on your next trip?”

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Try unfamiliar activities and foods.
- Express enjoyment when experiencing different art, music, and foods.

Communication/Literacy:

- Learn and use new vocabulary.

Cognitive:

- Link ideas and experiences from the past with new things.

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PHYSICAL EDUCATION and HEALTH
BIRTH TO THREE

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PHYSICAL EDUCATION and HEALTH
BIRTH TO THREE

BASIC FOUNDATIONS FOR PHYSICAL EDUCATION AND HEALTH

Children learn through active movement. Young children need space, common materials, and opportunities for practice. Children practice movement of their large muscles through pulling up, walking, balance, running, jumping, climbing, throwing, and even dancing. We want children to be physically fit because it is important to their health, now and later. Through large motor activities, children practice fundamental movement skills that help them develop a positive self-esteem and physical competence. Through movement they may make believe they are dogs, bears, snakes, butterflies, or space people!

Children move their small muscles when they grab or hold a rattle, stack blocks, string beads for necklaces, pinch, pull, stuff, and scribble. As they interact directly with their environment, children make discoveries through the use of their senses; how big is the ball, how tall is the tower, what does this new food taste or feel like, how deep can I dig in the sand? Young children are continually refining their senses and motor skills in preparation for the refined movement of penmanship. Holding a spoon or drinking from a cup helps a child learn independence. Chewing foods builds muscles used for speech. Large and small motor activities encourage healthy bodies.

We encourage children to be creative thinkers in their play, to talk about their discoveries and creations. Children observe and model other children. They begin playing side by side and may even begin to offer to include another child in their motor activities like rolling a ball, running, or taking turns on a balance beam.



KEY FINDINGS

- ♦ Development is bi-directional—what a child does or does not do affects the caregiver's response, and what the caregiver does or does not do, in turn, has an effect on the child. Positive encouragement for active exploration and investigation, which builds motor and sensory pathways, is important. *[Marcon 2003]*
- ♦ Caregivers can facilitate sensory-motor development by providing activities that involve touching, feeling, holding, or exploring objects. Toys should be responsive to the child's actions: a variety of grasping toys that require different types of manipulation; a varied selection of skill-development materials, including nesting and stacking materials, activity boxes, and containers to be filled and emptied; a variety of balls, bells, and rattles. *[Bredekamp & Copple 1997]*
- ♦ A safe, open environment where children are most free to move is important. Playpens, infant seats, swings, and jump chairs should not be used for extended periods of time. *[Gonzalez-Mena & Eyer 1997]*
- ♦ Nutrition may affect motor development in two ways. First, inadequate nutritional intake may cause damage to the nervous system, resulting in impairment of inter-sensory functioning. Second, nutrition affects strength and energy level. Undernourished infants are apathetic and lack sufficient physical vigor and endurance to pursue motor activities. *[Smoll 1982]*
- ♦ When an adult provides play opportunities that are based on the interests of the child (indicated by attention and excitement he/she displays) it will encourage the child to keep exploring and learning. *[Dodge, 1999]*
- ♦ Movement builds the brain particularly during the first four years of life preparing the child for lifelong learning. *[Dodge, 1999]*
- ♦ Mobile infants begin to build an identity as an explorer. Opening and shutting, filling and dumping, and picking up and dropping are all activities that challenge infants' mobility and dexterity as well as their ideas about objects and what they can do. Physical activity and learning are intricately connected. Through their exploration of objects and their own physical skills, babies learn rudimentary rules of cause and effect and the use of objects as tools for specific purposes, sequence, classification, and spatial relationships. *[Bredekamp & Copple 1997]*
- ♦ The exciting result of developing new motor skills is it leads infants and toddlers to make other discoveries. As they explore, they begin to make sense of their environment. For example, as the younger infant gains control of his head, he can use his eyes and ears to locate a sound. As he learns to use fingers, hands, and wrists, he can touch, taste, and smell the pear on his highchair tray. And as he turns the pages of a book, he can identify familiar objects and recall a favorite story. *[Dombro, Colker, & Trister-Dodge 1997]*
- ♦ The development of an infant's body awareness and self-image is also derived to some extent from information obtained through sensor motor activities. As infants use their bodies and experience success or failure in motor acts, they form self-opinions that are closely related to overall personality development. The establishment of physical independence through motor control leads to feelings of self-confidence, psychological security, and independence. *[Snow 1998]*

PHYSICAL EDUCATION AND HEALTH BASIC FOUNDATION 1

B.1 - Body Awareness and Enjoyment of Motor and Sensory Experiences

Along with other senses like sight and smell, the baby's ability to notice changes in body position is present at birth. Most babies can also recognize and integrate information from more than one sensory system early in life. Over time and with experience, the young child gains a feeling of mastery and pleasure from body movement and sensation.

Young children are learning when they:

- B.1.1 Explore objects, people, and things by kicking, reaching, grasping, and pulling.
- B.1.2 Hear and feel through their activities.
- B.1.3 Become aware of themselves as separate from others.
- B.1.4 Explore the environment (e.g., bang, shake, drop, mouth).
- B.1.5 Imitate actions of others.
- B.1.6 Experience how their body moves and feels.
- B.1.7 Adjust reach to different distances.
- B.1.8 Track moving objects.
- B.1.9 Look for hidden objects (object permanence).
- B.1.10 Imitate, follow, and enjoy adult interactions during games (e.g., peek-a-boo, pat-a-cake, moving to music/dancing).
- B.1.11 Show understanding of cause and effect.
- B.1.12 Respond to an adult's imitation of playful movement activity.

A child can be supported by an adult who:

- Responds to cues for sucking.
- Talks and sings to infant, smiles, coos, sways, swings.
- Offers finger or rattle for grasping.
- Offers opportunities for child to imitate sounds and movements.
- Engages in developmentally appropriate activities related to the child's age.
- Offers child containers to practice putting or dropping things in, taking them out, hiding them, taking off and putting on lids etc.

How it looks in everyday activities:

Jason is a 15 month old with some developmental delays. He and his family participate in First Steps Early Intervention services, and he receives weekly services from a developmental therapist and an occupational therapist. The providers have talked with Jason's mother, Stephanie, about the importance of young children learning to feed themselves. Stephanie says, "I think it is fine that Jason uses his fingers to eat. I just have a problem when he sometimes smashes food into his tray or even throws it on the floor. A lot of days it seems like more food ends up on the floor than in his mouth!"

Steve, the OT, says he appreciates how a mess can be extra work for moms and dads. He then points out that messy eating and playing with food are normal for children Jason's age. "Plus," Steve says, "feeding himself helps Jason work on tolerating textures, getting better with his thumb finger grasp, and coordination." Steve goes on to remind Stephanie how these early skills will grow and grow until Jason is doing school skills like holding a pencil or cutting with scissors. "Wow. I guess a little mess is worth it when you put it like that!" Stephanie says. She asks Steve to recommend foods that will help Jason continue to improve his fine motor skills.

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Demonstrates confidence in growing abilities.
- Demonstrates increasing independence.
- Plays near other toddlers and babies.

Physical:

- Uses body with increasing control.
- Uses fine and gross motor skills.
- Improves balance.

Communication/Literacy:

- Follows simple directives.
- Listens to songs and chants.

Cognitive:

- Follows pattern.
- Becomes aware of spatial terms like over, under, through.

PHYSICAL EDUCATION AND HEALTH BASIC FOUNDATION 2

B.2 - Increased Control of Body Movements: “Tummy Time”

Beginning at birth, young children start the process of gaining control over their bodies. As muscles strengthen and coordination improves, gains are seen in the ability to control the head, trunk, arms, and legs. Movement skills progress rapidly from sitting, to crawling, to cruising, to walking and even running. As children attain competence in fine and gross motor skills, they use their new capacities for fun in play and to become more self-sufficient.

Young children are learning when they:

- B.2.1 Use reflexes such as searching for something to suck, turning head to avoid obstruction of breath, and grasping an object.
- B.2.2 Develop increased control over their body parts.
- B.2.3 Wiggle, bounce, and kick.
- B.2.4 Track moving objects.
- B.2.5 Open doors, cabinets.
- B.2.6 Show interest in cause and effect.
- B.2.7 Initiate motor play.
- B.2.8 Imitate other's expressions and actions.
- B.2.9 Try putting on clothing.
- B.2.10 Turn pages in a book.
- B.2.11 Stack.
- B.2.12 Scribble with crayons or markers.
- B.2.13 Throw a ball.

A child can be supported by an adult who:

- Facilitates maximum freedom of movement by limiting clothing and providing open area for movement.
- Gives older infants space and time to practice crawling, creeping, pulling up, and walking.
- Avoids too much time in a walker, playpen, or infant swing as this may inhibit the development of important motor skills.
- Talks to the infant and provides opportunity for imitation of movements.
- Places the child on the floor and joins in play with him/her (rolling back and forth, sharing a toy, finger plays).
- Helps the child to learn to wave and clap appropriately.
- Helps the child learn to take off socks, shirts, and other clothing, encourage his labeling body parts, clothing, colors etc.
- Plays simple “daddy says” game asking the child to do something with a part of his body.
- Encourages the child to move to music.

How it looks in everyday activities:

Tonio, a 4 month old, wakes from his afternoon nap. After changing his diaper, Maria, Tonio's mom says, "Let's go outside and wait for your sister to come home from school."

Maria spreads a big blanket in a shady spot in their yard. She chooses some of Tonio's favorite toys and puts them around the blanket so he can see them. Maria smiles when she thinks about Tonio's last doctor's visit. "Well, buddy," she says, "Dr. Green says you are getting to be a big boy. She says you need lots of tummy time to get strong and learn to move around by your self." Maria puts Tonio on his stomach on the blanket and watches with satisfaction as he pushes up a little on his arms and tries to keep his head steady. Maria remembers how Dr. Green explained that tummy time builds Tonio's strength in his neck, arms, and even his fingers. "But you are important too." Dr. Green said. "Tonio will also like to hear you talk and sing." Remembering this, Maria sings a song she remembers from her own childhood. Tonio pauses in his play and smiles at his mother.

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Interacts with adult in playful exchanges.
- Develops feelings of competence as motor control increases.

Physical:

- Strengthens upper body muscles, including those in neck, arms, and hands.
- Shows increasing control over body movements.

Communication/Literacy:

- Develops receptive language.
- Engages in back and forth exchange of vocalizations.

Cognitive:

- Explores as motor skills increase to learn about the world around them.
- Shows curiosity.

PHYSICAL EDUCATION AND HEALTH BASIC FOUNDATION 3

B.3 - Experiencing Competence and Building Confidence Through Exploration

After the young child gains ability to move independently by walking, skills like running, climbing, and peddling soon follow. Fine motor skills are also developing, and the child is increasingly able to do play and self help skills independently. Doing it “myself” is a source of much satisfaction, resulting in feelings of confidence, competence, and self esteem.

Young children are learning when they:

- B.3.1 Perform motor skills in progression of head control, rolling, sitting, standing, walking, running, climbing.
- B.3.2 Explore the environment (e.g., banging, shaking, throwing, dropping, climbing).
- B.3.3 Repeat actions and gain strength.
- B.3.4 Combine discrete skills through repetition and practice.
- B.3.5 Display protective responses.
- B.3.6 Use objects as tools.
- B.3.7 Explore the people and objects around them using all of their senses.
- B.3.8 Initiate motor play.
- B.3.9 Display confidence in motor and sensory ability.
- B.3.10 Increase independence and drive to master developing motor abilities.
- B.3.11 Show autonomy in self-care.
- B.3.12 Demonstrate awareness of rules for safety.
- B.3.13 Use adults as resources.
- B.3.14 Show pride in physical/personal accomplishments.

A child can be supported by an adult who:

- Places babies in new positions so they can see others from different angles.
- Baby/child proofs everything!
- Provides opportunities to explore through movement, creeping, crawling, climbing, and walking.
- Encourages exploration through various stimuli and objects.
- Exposes children to different play/physical settings and new experiences; i.e., McDonalds play land, local parks.
- Provides support and guidance as children learn to resolve differences.
- Provides opportunities for the child to participate in cooperative games without rules with peers.
- Offers playthings such as small wheel toys, baby buggies/carts to push.
- Makes available different materials for learning and exploring (sand, water, rice pans etc.).
- Offers toys for digging, sifting, cups, water play, outdoor chalk.
- Gives opportunities for self feeding, wiping the table, pouring etc.
- Provides large boxes for stacking, pushing, pulling, hiding in.

How it looks in everyday activities:

Todd, aged 20 months, and his dad, Richard, are having a fun afternoon at home. Richard follows Todd around as he explores their home. “Hey, slow down little explorer,” Richard says as he redirects Todd away from the stairs. Todd returns to the stairs many times this afternoon.

Later when Todd’s mother Kathryn returns from work, Richard says, “I think Todd might be ready to start learning to climb stairs.” “I noticed that he was interested in stairs, too” Kathryn agrees, “but our stairs are pretty steep. I don’t feel comfortable with him learning on them.” Richard nods his head in agreement as he moves Todd away from the stairs yet again. He thinks he has an idea to surprise his wife and son.

The next day when Kathryn comes home she sees Todd going up his own little set of stairs. Richard has taped together some old phone books in a stair step shape. Kathryn notices that Richard bound the catalogues together tightly so that they would not slip. Todd is grinning broadly as he climbs his steps over and over, holding tightly to daddy’s hand. “Can I have a turn too?” Kathryn asks. Todd’s smile grows even wider as he climbs his stairs with his mommy on one side and his daddy on the other.

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Shows confidence by trying new things.

Communication/Literacy:

- Uses direction words related to movement (i.e., up, down, over).

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MUSIC
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BASIC FOUNDATIONS FOR MUSIC

From conception, children invite, seek, and initiate musical interactions with their parents and caregivers. Long before a child goes to piano lessons, music can enrich an adult's relationship with the child. Just like the call and answer of a jazz song, a child can connect, play, and celebrate through music!

When an adult coos, sings, and plays rhythm games with the child, the adult becomes more sensitive to the child and affection is strengthened. Because music involves seeing, hearing, moving, and feeling, it uses all the senses and helps the child prepare for learning more challenging tasks like learning language. Whether trying to capture the attention of the child or soothing the child's upset state, music can be rewarding for the child and adult.



KEY FINDINGS

- ♦ Musical experiences that provide interactive, success-oriented opportunities for children are avenues for children's overall growth and development including physical, cognitive, emotional, and social development. *[Neelly, 2001]*
- ♦ Music stimulates children's music thinking and decision-making, involves multi-sensory learning strategies, encourages creativity, and guides appropriate responses that they may not otherwise have experienced. *[Neelly, 2001]*
- ♦ Children bring their own unique interests and abilities to be musically expressive and to learn through their musical play. Young children express individual responses to the music of their culture through their preferences for particular songs, instrumental music, and recordings. Therefore, the musical experiences may be adapted for a variety of children's developmental needs and interests. *[Custodero, 2002; Neelly, 2001]*
- ♦ Since music is the universal language, through music, infants and toddlers can learn respect for other cultures and develop their understanding of others. *[Mitchell and David, 1992]*
- ♦ The quality of the learning experience depends not only on musical materials but also on ways in which adults shape the experience to create personal meaning for the child. *[Neelly, 2001]*
- ♦ A variety of musical styles introduces a wide range of auditory, oral, physical, and emotional experiences that contribute to important music learning and connections. *[Neelly, 2001]*
- ♦ Children must be musically involved so that they can learn through the most natural way they know-through musical play. *[Neelly, 2001]*
- ♦ Listen to children and include their ideas and interests in planning their musical play *[Palmer, 2001]*
- ♦ Music education begins at conception. Parents are the first ones to give musical guidance to their children and provide musical experiences and stimulation that nurture a child's music abilities. *[Levinowitz, 1999]*

MUSIC BASIC FOUNDATION 1

B.1 - Experiencing Music

Music naturally delights children. Children show enjoyment of music through facial expression, vocalizations, and movement and produce music spontaneously and in imitation. Children of all ages express themselves through music. Music activities are fun for children and also benefit their cognitive, social emotional, communication, and physical development. As children grow in their appreciation of music and movement, they acquire a gift that will bring them pleasure throughout life. Young children enjoy activities that have rhythm and repetition. They love to create their own rhythmic patterns, but they also enjoy imitating actions. The infant and toddler years are very important for nurturing musical potential while music aptitude is still developing.

Young children are learning when they:

- B.1.1 Respond to familiar voices, songs, and sounds.
- B.1.2 Smile and coo to sounds the child likes.
- B.1.3 Imitate noises such as, clicking and raspberries.
- B.1.4 Toe point, leg wag, and arm wave to music.
- B.1.5 Create sounds by singing and making music.
- B.1.6 Recognize familiar melodies long before understanding the meaning of words.
- B.1.7 Behave differently depending on the types of music (e.g., calm down to lullabies; respond by moving arms and legs).
- B.1.8 Move to the music on own and with others.
- B.1.9 Imitate pat-a-cake or other familiar games.
- B.1.10 Make rhythmic patterns with objects (e.g., hitting the table with a spoon).
- B.1.11 Perform songs and dances.
- B.1.12 Learn to sing other songs.
- B.1.13 Play musical instruments, real or improvised.
- B.1.14 Make up songs and dances by themselves and along with others.
- B.1.15 Sing a favorite song again and again, just as listening to a favorite book many times over.
- B.1.16 Sing a song as a means of comfort.

A child can be supported by an adult who:

- Softly sings or hums to the baby or plays soft music.
- Follows the mood of the child (e.g., if fussy, then sing lullabies or if alert, sing play songs).
- Sings a familiar song to help the baby feel safe and secure in an unfamiliar setting.
- Plays sound games with infants (e.g., repeats sounds that the baby makes back to the adult).
- Makes up rhyming words when talking to infants and toddlers.
- Sings and dances to music.
- Provides a variety of rattles and musical toys.
- Encourages child-made music.
- Encourages the child to move to the music.
- Encourages the child to point out common sounds (e.g., clock ticking, birds singing).
- Plays a variety of music (e.g., jazz, children's music, top 40, and other cultures).
- Uses music as a part of daily routine.
- Sings songs with finger plays (e.g., "The Itsy Bitsy Spider").
- Encourages children to imitate the sounds of animals.
- Plays different musical games (e.g., "Ring-Around-the-Rosie", "Old MacDonald").
- Uses music to connect to the child's roots and heritage (e.g., African-American spiritual, a Yiddish or Irish lullaby, an American or Mexican folk song).

How it looks in everyday activities:

Jan and several colleagues were working late to complete an important project one night. Because it was near dinner time, they ordered pizza. Carla's three year-old son, Trevor, and her husband Bob stopped by to pick her up. "I'll go finish up a few more details in my office if you guys can clear up this pizza," Jan offered. Carla agreed that was a good plan.

As Jan logged off her computer, she heard laughter and singing in the hallway. Peering out of her door, Jan laughed out loud as she saw a parade coming down the hallway! Trevor, now dressed as an impromptu drum major complete with bright red hat and baton, led the way. Behind him were three smiling adults dressed as a fireman, construction worker, and police officer. Trevor sang a newly created song celebrating "worker people" and the grown-ups joined in. After a few trips up and down the hall, Trevor announced "We need a break; for more pizza!" As the grown-ups followed their leader down the hall, Jan observed to Carla "If you have to be worker people, it is a lot more fun to do it with a parade and a song."

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Expresses emotion through music; shares music; demonstrates leadership.

Physical:

- Uses large muscles; moves to music.

Communication/Literacy:

- Experiments with voice; sings during activity; uses descriptive words.

Cognitive:

- Experiments with a variety of sounds; creates patterns with voice and motion; pretends.

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VISUAL ARTS
BIRTH TO THREE

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BASIC FOUNDATIONS FOR VISUAL ARTS

Art becomes a part of a child's life from birth. It takes many shapes and forms. Jim Greenman (1988) in *Caring Spaces, Learning Places: Children's Environments That Work* explains "Art is universally appealing to children. Smearing, scribbling, painting, sticking together, shaping into forms, experimenting with color, and all the other possible means of self-expression begin in infancy. Art is a way children create beauty, powerfully impose their order and will on objects, explore color and substance, and create offerings to proudly share with and bestow on others."



KEY FINDINGS

- ♦ **Art is basic to child development. It is necessary, not just nice. Art activities help children develop eye-hand coordination and fine motor skills, communication skills, self-esteem that comes from accomplishment and imagination.** *[Hurwitz, A. & Day M., 1991; Cherry, 1999]*
- ♦ **For young children, the process is more important than the product. The richness of experience of art rather than perfection is the point of the whole thing. In art, young children are praised for the uniqueness of their work rather than its uniformity to a predetermined standard or response.** *[Hurwitz & Day, 1991; Greenman, 1988; Trister Dodge, D. & Colker, L.J. 1999]*
- ♦ **Visual arts are seen as an additional “language,” one in which children’s ideas and concepts are expressed in art media.** *[Edwards, Gandini & Forman, 1998]*
- ♦ **Art is a universal language. Drawing is a universal activity for children around the world.** *[Hurwitz, A. & Day M. 1991]*
- ♦ **Adult input is an essential to young children’s artistic explorations. Adults need to create an environment where children are free to create art. To produce art, children need many interesting and meaningful experiences and encouragement to think, talk, and create art in response to their experience.** *[Althouse, Johnson, & Mitchell, 2003; Seefeldt 1995]*
- ♦ **Young children often communicate through drawing, including their scribbling.** *[Althouse et al. 2003]*
- ♦ **High-quality early childhood programs include art appreciation and aesthetic education in their curriculum, as well as an abundance of expressive art experiences.** *[Shiller 1995]*

VISUAL ARTS BASIC FOUNDATION 1

B.1 - Responding To and Creating Visual Art

Children enjoy art and express how they feel, think, and view the world through art. Art experiences begin long before a child can hold a crayon or paint with a brush. When a baby notices a brightly colored toy or a pattern on his father's shirt, he is beginning to appreciate beauty. Art activities for very young children should focus on encouraging creativity. The process is more important than the product. The child will eventually express beauty through more traditional art experiences such as drawing, painting and pasting materials, or sculpting and molding materials.

Young children are learning when they:

- B.1.1 Focus on motions and movement.
- B.1.2 Respond to the world with eyes, fingers, and mouth.
- B.1.3 Prefer looking at black and white colors and patterns during the first month rather than other colors.
- B.1.4 Delight in touch and feel of materials rather than what is being produced.
- B.1.5 Scribble (e.g., pictures rarely look like a recognizable object).
- B.1.6 Assign meaning to scribbles.
- B.1.7 Watch an activity before getting involved.
- B.1.8 Create patterns through art, blocks, and other objects in their environment.
- B.1.9 Express self through dramatic play.
- B.1.10 Use dance and visual art as a vehicle for self-expression.
- B.1.11 Randomly distribute marks in different areas of paper.
- B.1.12 Paint with fingers, draw with crayons, and mold with dough.
- B.1.13 Show individuality in artwork.
- B.1.14 Pretend through role play.
- B.1.15 Use different colors, shapes, and textures to create form and meaning.

A child can be supported by an adult who:

- Places pictures where the baby can focus or hangs a colorful mobile on the crib.
- Encourages babies' safe and creative use of common household items (e.g., margarine tubs, empty boxes, pots and pans).
- Provides opportunities to draw with paint, crayons, or chalk (safe and non-toxic).
- Provides variety of shapes of crayons and chalk and large sheets of sturdy paper or cardboard for drawing.
- Remembers that the process of creating is more important than the product.
- Encourages children to do art in their own way.
- Plans art experiences according to the physical, emotional, and intellectual development of the child.
- Uses child's imagination as a motivation for art. Avoids forcing the child to classify or name what is created.
- Invites the child to describe what is created and avoids judgment.
- Encourages the child to decide what to draw, paint, or make.
- Views art materials as meaningful rather than a waste of time and messy.
- Uses a variety of art media for self-expression.
- Displays child's art within child's eye-level.
- Uses child's art as part of daily routine (e.g., decorating cookies).
- Provides safe materials.
- Uses the outdoors as a place for art (e.g., walls or fences as a place for art, side-walk painting, water and sand, rock and wood).

How it looks in everyday activities:

Jane is a toddler teacher in a center based program. This week she has decided to have several lessons incorporating zoo animals. Jane sets up an area with white paper cut in zebra shapes, small shallow trays of black paint, brushes, and some little plastic zebras for models. Jane shows the boys and girls how to brush a black stripe on the white zebra shape.

An Ping watches Jane thoughtfully. She picks up a plastic zebra and turns it over a few times. Then she carefully puts the zebra's feet in the tray, coating them with paint. An Ping stamps the small animal on the paper, leaving a feet-shaped imprint. Jane smiles at An Ping and says, "An Ping has an idea to paint with the zebra's feet!"

Next An Ping puts her hands in the paint and makes some handprints on the paper. Jane asks her if she would like a bigger piece of paper and An Ping happily agrees. Two other children join An Ping and they make a large painting of black handprints. When An Ping's father comes to pick her up later that day, he enjoys seeing the painting she made. Jane explains how An Ping used her imagination and creativity to make an original art project. An Ping's father says, "Thank you Jane for letting An Ping be herself!"

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Cooperates to complete a project with other children.
- Tells others about ideas and thoughts.

Cognitive:

- Changes actions to fit new situation.
- Adapts an activity to suit own interests and ideas.

Physical:

- Uses fingers and hands in painting and stamping.

Communication/Literacy:

- Requests more of something (paints, paper).

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